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# Flora America Septentrionalis;

OR, A

## SYSTEMATIC ARRANGEMENT

AND

## DESCRIPTION

OI

THE PLANTS

OF

# NORTH AMERICA.

CONTAINING, BESIDES WHAT HAVE BEEN DESCRIBED BY
PRECEDING AUTHORS, MANY NEW AND RARE
SPECIES, COLLECTED DURING TWELVE
YEARS TRAVELS AND RESIDENCE
IN THAT COUNTRY,

BY

## FREDERICK PURSH.

IN TWO VOLUMES.

WITH TWENTY-FOUR ENGRAVINGS.

VOL. II.

LONDON:

PRINTED FOR WHITE, COCHRANE, AND CO., FLEET STREET.

1814.

FRINTED BY RICHARD AND ARTHUR TAYLOR, SHOE-LANE, LONDON.

110 P950 1811 V.2 SENHRS

# XII. POLYANDRIA.

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424. TILIA. Cal. 5-partitus, deciduus. Pet. 5. Stigma sub-5-lobum. Caps. immatura 5-locularis, 5-valvis, 5-sperma: matura submonosperma, basi dehiscens.

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gregatæ, 1-spermæ. Polygama.
467. CYAMUS. Cal. 4-5-phyllus. Pet. plurima. Fructus turbinatus, in disco truncato foveis plurimis excavatus 1-spermis. Nuces ovatæ, stylo persistente coronatæ.

\*\* Flores spathacei. Spadix simplex:

468. POTHOS. Spatha cucullata. Spadix floribus tectus.
Cal. O. Pet 4. Baccæ 2-spermæ.

469. CALLA. Spatha planiuscula. Spadia floribus tectus. Cal. et Cor. O. Baccæ polyspermæ.

470. ARUM. Spatha cucullata. Spadix supra nudus, inferne femineus, medio stamineus. Cal. et Cor. 0. Baccæ utplurimum 1-sperimæ.

## I. MONOGYNIA.

423. BEJARIA. Gen. pl. 811. Vent. hort. cels p. 51.

racemosa.

 B. foliis ovato-lanceolatis glabris, floribus racemoso-paniculatis terminalibus.—Vent. l. c. Befaria paniculata. Mich. fl. amer. 1. p. 280.

Icon. Mich. l. c. t. 26. Vent. l. c. t. 51.

α. B. foliis utrinque acutis, caule hispido.

β. B. foliis obovatis obtusiusculis, caule glabro.

In sandy woods, on the banks of swamps and ponds:
Georgia and Florida: particularly plentiful on the
Island of St. Mary's. 1. June. v. v. A beautiful
shrub, from three to four feet high; flowers white,
tinged with red, of an agreeable scent.

## 424. TILIA. Gen. pl. 894.

glabra.

1. T. foliis suborbiculato-cordatis abrupte acuminatis argute serratis subcoriaceis glabris, petalis apice truncatis crenatis, stylo petalis subæquali, nuce ovata subcostata.—

Vent. in mem. de l'instit. sc. phys. 4. p. 9. t. 2.

T. americana. Willd. sp. pl. 2. p. 1162.

T. caroliniana. Wangh. amer. 56.

T. canadensis. Mich. fl. amer. 1. p. 306. Icon. Vent. l. c. t. 2. Mich. arb. t. . . . .

In the woods of Canada and the northern United States, and on the mountains, as far south as Carolina. In May, June. v. v. This tree is known by the name of Lime- or Line-tree; Basswood; Spoonwood; and is both useful and ornamental.

2. T. foliis cordatis sensim acuminatis rariter dentatis membranaceis glabris, paniculis laxifloris, petalis emarginatis, stylo petalis longiore, nuce globosa.— Mich. fl. amer. 1. p. 306.

laxiflora.

Icon. Mich. arb. t....

Near the sea-coast: Maryland to Georgia. 1/2. May, June. v. v. s. fl. A very distinct species, though generally confounded with the foregoing one.

3. T. foliis basi truncatis obliquis acuminatis denticulatoserratis subtus pubescentibus, paniculis confertifloris, petalis emarginatis, stylo petalis subæquali, nuce globosa lævi. — Vent. in mem. de l'instit. sc. phys. 4. p. 10. t. 3. Willd. sp pl. 2. p. 1162.

pubescens.

T. caroliniana. Mill. dict. no. 4.

T. americana. Walt. fl car. 153. Wangh. amer. 55.

β. T foliis laxe serratis tenuissimis subpapyraceis. Vent. l. c. p. 11.

leptophylla.

In close copses and on the banks of rivers: Virginia to Georgia. η. May—July. v. v. The variety β. can scarcely be considered a distinct species, unless the flowers and fruit should prove it so, both of which I have not seen.

4. T. foliis ovatis basi oblique aut æqualiter truncatis cor- heterophylla. datisque argute serratis subtus niveo-tomentosis, nuce globosa subcostata. Vent. l. c. p. 16. t. 5.

On the banks of the Ohio and Mississippi. 7. June. v. s. A very handsome and desirable ornamental tree.

## 425. HELIANT'HEMUM. Juss. gen. pl. 326.

Cisti spec. Gen. pl. 913.

1. H. exstipulatum, erectum; foliis alternis erectis linearilanceolatis planis subtus tomentosis, racemis terminalibus paucifioris, calycis laciniis lato-ovatis acuminatis, capsulis calyce brevioribus.—IVilld, sp. pl. 2. p. 1199. sub Cisto.

canadense.

In dry fields and pine woods: Canada to Carolina. 4.

June. v. v. Flowers, as in all the following species, yellow.

2. H. exstipulatum, erectum, pulverulento-tomentosum; ramuliflorum. foliis alternis oblongis acutis margine revolutis subtus tomentosis, raceniis brevissimis, summitate subtrifloris, calycis laciniis orbiculatis pulverulentis, capsulis globosis longitudine calycis.—Mich. fl. amer. 1. p. 307.

Menandra ramis alternis. Clayt. fl. virg. 20. In sandy fields: New Jersey to Carolina. v. v. Flowers small.

corymbosum.

3. H. exstipulatum, erectum, ramosum, minutim pubescens; foliis alternis lanceolatis subtus cano-tomentosis. corymbis fastigiatis confertim multifloris, calveis laciniis ovatis acutis, capsulis calyce vix longioribus.— Mich. fl. amer. 1. p. 307.

In dry barren sand-fields, particularly along the sea-coast: New Jersey to Georgia. 4. June—Aug. v. v. Flowers very small, sometimes without petals; from which circumstance this and the foregoing spe-

cies have been mistaken for Lechea major.

rosmarinifolium.

- 4. H. exstipulatum, stricte-erectum, simplex, canescens; foliis linearibus margine revolutis subtus cano-tomentosis, racemulis axillaribus interrupte confertifloris, calycis laciniis ovatis acutis, petalis calyce triplo longioribus.
  - In pine-barrens: Georgia. Enslen. 4. July. v. s. in Herb. Enslen. Flowers bright yellow.

carolinianum. 5. H. exstipulatum, hirsutum, erectum; foliis alternis oblongo-ovalibus subdenticulatis, imis obovalibus utrinque hirsutis, pedunculis terminalibus paucis calycibusque villosissimis, calycis laciniis oblongis acutis petalis brevioribus. - Mich. fl. amer. 1. p. 307.

Cistus carolinianus. Walt. fl. car. 152.

Icon. Vent. cels 74.

In pine-barrens of Carolina and Georgia. 2. June-Aug. v. v. Flowers and leaves larger than in any other species.

426. HUDSONIA. Gen. pl. 822. Willd. hort. berol. 15.

ericoides.

1. Hudsonia. Willd. sp. pl. 2. p. 858.

Icon. Willd. hort. berol. 15. Berg. act. holm. 1778. t.2. In pine-barrens of New Jersey and Virginia. b. May, June. v. v. Flowers yellow. This delicate little shrub, not above six inches high, covers large tracts of sandy pine-woods in a similar manner as common heath.

## 427. TALINUM. Juss. gen. pl. 346.

1. T. foliis cylindricis carnosis, corymbis terminalibus pe- teretifolium.

On sunny rocks: Delaware and Virginia. 4. July. v. v. Flowers purple.

#### 428. PORTULACCA. Gen. pl. 824.

1. P. foliis cuneiformibus, floribus sessilibus. Willd. sp. oleracea. pl. 2. p. 859.

Icon. Schkuhr handb. 130.

Purslane is a common weed in gardens.

## 429. CHELIDONIUM. Gen. pl. 880.

C. foliis alternis pinnatis lobatis, umbellis axillaribus pedunculatis.-- Willd. sp. pl. 2. p. 1141.

Icon. Fl. dan. 542. Engl. bot. 1581.

Near old buildings and among rocks: New England and Pensylvania; probably introduced. 4. May, June. v.v. The yellow fluid which it affords by breaking the stems, is considered an infallible remedy in curing warts and corns.

C. caulibus in summitate geminatim diphyllis, foliis sessilibus lobato-pinnatifidis, pedunculo solitario unifloro, capsula oblongo-ovata.—Mich. fl. amer. 1. p. 309.

In shady woods, near rivulets: Kentucky and Tennassee.

Michaux. 4. May. v.s. Resembles Sanguinaria
'very much, and seems to be the connecting link to both genera.

## 430. GLAUCIUM. Juss. gen. pl. 261.

 G. caule glabro, foliis caulinis amplexicaulibus repandis, pedunculis unifloris, siliqua tuberculato-scabriuscula. Smith fl. brit. 2. p. 563.

Chelidonium Glaucium. Willd. sp. pl. 2. p. 1142.

Icon. Fl. dan. 585. Engl. bot. 8.

On the sea-coast of Virginia and Carolina. O. June, July. v. v. Flowers large, yellow.

## 431. PAPAVER. Gen. pl. 881.

P. capsulis hispidis, scapo unifloro nudo hispido, foliis subpinnatis, foliolis lanceolatis; inferioribus subincisis.
 —Willd. sp. pl. 2. p. 1145.

majus.

diphyllum.

luteum.

nudicaule

#### POLYANDRIA MONOGYNIA. Papaver.

Icon. Fl. dan. 41. Dill. elth. t. 224. f. 291.
In Labrador. Colmaster. J. v. s. in Herb. Dickson.
Flowers yellow.

## 432. SANGUINARIA. Gen. pl. 878.

canadensis.

1. S. folio subreniformi sinuato-lobato, scapo unifloro.—

Willd. sp. pl. 2. p. 1140.

Icon. Bot mag. 162. Dill. elth. t. 252.

stenopetala.

β. S. petalis linearibus.
In dry woods, generally in fertile soil: Canada to Florida. 2l. March, April. v.v. Flowers white; the number of petals is variable; and with little care and attention a fine double variety might be produced. It is known by the name of Blood-wort.

## 433. ARGEMONE. Gen. pl. 882.

mexicana.

 A. capsulis 5-valvibus, foliis pinnatifidis incisis spinosis, floribus axillaribus.—Willd. sp. pl. 2. p. 1148.
 Icon. Bot. mag. 243.

On banks of rivers: Carolina to Florida. . July, Aug. v. v. Flowers yellow, large. In Georgia is a variety with white flowers, which has a beautiful appearance.

## 434. PODOPHYLLUM. Gen. pl. 879.

peltatum.

1. P. caule unifolio unifloro, folio peltato palmato: lobis cuneatis incisis.—Willd. sp. pl. 2. p. 1141.

Icon. Trew ehret. t. 29. Catesb. car. 1. t. 24.

In shady woods, in large patches, generally on moist ground: New England to Carolina. 21. March, April. v. v. Flower white; the fruit is the size of a common plum, green, eatable, and known by the name of May-apple: the root is sometimes used as Ipecacuanha.

## 435. ACTÆA. Gen. pl. 877.

americana.

1. A foliis decompositis: foliolis oblongis sensim acutis inciso-serratis, racemo ovato, petalis staminibus brevioribus.

A. spicata Mich. fl. amer. 1. p. 308.

A. rubra. Willd. enum. 560,

alba.

a. A. baccis niveis.

Icon. Corn. canad. t. 77. Moris. hist. 2. s. 1. t. 2. f. 7.

B. A. baccis rubris.

In shady rocky woods, in rich vegetable mould: Canada to Virginia; principally on the mountains. 4. April, May. vv. Flowers white; berries white or red; known by the name of Red and White Cohosh, and considered by the natives as a valuable medicine. A. spicata differs not only in its toliage, but the petals are the length of the stamina.

#### 436. SARRACENIA. Gen. pl. 885.

1. S. foliis brevibus, tubo ventricoso-gibbo, fauce coarctato, ala ventrali arcuatim elatiore, appendice erecta subreniformi-cordata mutica sessili. *Mich. fl. amer.* 1. p. 310. Willd sp. p! 2. p. 1150.

Icon. Bot. mag. 849. Mill. ic. 241. Catesb. car. 2. t. 70. Pluk. amalth. t. 376. f. 6

In cedar swamps and sphagnous marshes: Canada to Carolina. 4. June, July. v. v. Flowers purple, large. This singular and handsome plant is, with all the following, a very desirable object in the collection of the admirers of nature; they bear cultivation, in pots filled half way with sphagnum, extremely well.

2. S. foliis elongatis, tubo superne dorso maculato, in appendicem fornicatim incurvatam brevem desinente, ala ventrali lineari-lanceolata. *Mich. fl. amer.* 1. p. 310.

S. minor. Walt. fl. car. 153.

S. adunca. Smith exot. bet. 1. t. 53.

In open swamps, on sandy soil: North Carolina to Florida. 4. June, July. v. v. Flowers yellow. The transparent spots on the back of the leaf distinguish this species very easily from the following, with which it has often been confounded.

3. S. foliis strictis longissime infundibuliformibus, fauce patula, ala ventrali subnulla. appendice erecta basi coarctata ima parte lateribus retroflexis, mucrone subulato. Mich. fl. amer. 1. p. 310. Willd. sp. pl. 2. p. 1150.

Icon. Bot. mag. 780. Bot. rep. 381. Catesb. car. 2.

t. 69. Pluk. amalth. t 376. f. 5.

In open swamps: Virginia to Florida 2. June, July. v. v. Flowers yellow. This is the tallest growing sort; the leaves are often two feet long.

purpurea.

variolaris.

flava.

psittacina.

4. S. foliis brevibus superne coloratis venoso-reticulatis, ala ventrali sursum subcuneatim latescente, tubo sensim in appendicem recurvatam rotundatim fornicatam mucronatam desinente. *Mich. fl. amer.* 1. p. 311.

S. rubra. Walt. fl. car. 152.

Icon. Pluk. amalth. t. 152. f. 3?

In swamps of Georgia and Florida. 4. June, July. v. v. Flowers on very long peduncles, purple; leaves small, very handsomely marked with purple veins.

#### 437. LEWISIA. Pursh in linn. trans. v. 11.

rediviva.

1. Lewisia. l. c.

On the banks of Clarck's river. 4. July. v. s. in Herb. Lewis. Petals white; calyx elegantly red-veined,

of a consistency like paper.

Radix fusiformis, ramosa, sanguinea. Folia radicalia linearia, subcarnosa, obtusiuscula. Scapus uniflorus? an biflorus. Pedicellus basi geniculatus. Calyx coloratus, scariosus, 7—9-phyllus, patens: foliolis ovatis, acutis, concavis, nervoso-venosis, interioribus angustioribus. Petala 14—18. alba, lanceolata, patentia, calyce vix duplo longiora. Filamenta 14—18. receptaculo petalis opposite inserta, filiformia, calyce breviora. Antheræ oblongæ, erectæ. Germen superum, ovatum, glabrum. Stylus filiformis, staminibus paulo longior, superne trifidus. Stigmata 3. bifida. Capsula oblonga, 3-locularis: loculis bispermis. Semina lenticularia, nitida, nigra.

This elegant plant would be a very desirable addition to the ornamental perennials, since, if once introduced, it would be easily kept and propagated, as the following circumstance will clearly prove. The specimen with roots taken out of the Herbarium of M. Lewis, Esq. was planted by Mr. M'Mahon of Philadelphia, and vegetated for more than one year: but some accident happening to it, I had not the pleasure of seeing it in

flower.

## 438. NYMPHÆA. Gen. pl. 886.

Castalia. Salisb. in annals of bot. 2. p. 71.

odorata.

1. N. foliis orbiculato-cordatis integerrimis subemarginatis, lobis divaricatis, acumine obtuso, petalis calyce 4-

4-phyllo æqualibus, stigmate radiis 16—20. erectis.— Willd. sp. pl. 2. p. 1153.

N. alba. Mich. fl. amer. 1. p. 311. Walt. fl. car. 155.

Castalia pudica. Salisb. l. c. p. 72.

Icon. Bot. mag. 819. Bot. rep. 297.
β. N. foliis cordatis integerrimis obtusis, lobis divaricatis acutis, petiolis pedunculis foliisque subtus purpureis, calycibus petalisque extus roseis.

Icon. Willd. hort. berol. 39?

In ponds and slow-flowing waters: Canada to Carolina.  $\mathcal{U}$ . July. v. v. Flowers white, fragrant. The variety  $\beta$ . is probably a distinct species, which only further observation can decide. It resembles N. pygmaa.

439. NUPHAR. Smith prodr. fl. græc. 1. p. 361.

Nymphæa. Gen. pl. 886. Salish. in annals of bot. 2. p. 71.

1. N. foliis cordatis integerrimis, lobis approximatis, calyce 5-phyllo, stigmate repando 14—20-radiato profunde umbilicato.—Ait. kew. ed. 2. v. 3. p. 295.

Nymphæa lutea. Willd. sp. pl. 2. p. 1151.

Nymphæa umbilicalis. Salisb. l. c.

Icon. Engl. bot. 159.

In lakes on the Allegany mountains. 4. June, July. v. v. Flowers yellow, as are all the following species.

 N. foliis erectis cordatis integerrimis, lobis divaricatis, calyce 6-phyllo, stigmate leviter umbilicato 13-radiato, pericarpio sulcato.—Ait. kew. ed. 2. v. 3. p. 295.

Nymphæa advena. Willd. sp. pl. 2. p. 1152.

Nymphæa arifolia. Salisb. l. c.

Icon. Bot. mag. 684. Willd. hort. berol. 38.

In all ponds and ditches, even in salt water: Canada to Carolina. 4. July, Aug. v. v. Resembles the foregoing species, but is distinguished at first sight by its upright leaves.

3. N. foliis cordatis, lobis subapproximatis, calyce 5-phyllo, stigmate inciso 8—12-radiato. Ait, kew. ed. 2. v. 2. p. 205.

Nymphæa lutea  $\beta$ . Kalmiana. *Mich. fl. amer.* 1. p. 311. Nymphæa lutea. *Walt. fl. car.* 154.

Icon. Bot. mag. 1243.

In ponds: Canada to Carolina; rare. 4. July, Aug. v. v. Flowers very small in comparison with others.

rosea.

Iuiea.

advena.

Kalmiana.

sagittæfolia.

 N. foliis elongatis sagittato-cordatis obtusis, calyce 6phyllo, petalis nullis, antheris subsessilibus.—Salisb. l. c.

Nymphæa sagittifolia. Walt. fl. car. 155.

Nymphæa longifolia Mich fl. amer. 1. p 312.

In slow-flowing waters: Carolina and Georgia. 4.
July, Aug. v.s. Flowers small.

440. CERATOPHYLLUM. Gen. pl. 493. Willd. act. ac. berol. 1798. p. 84.

demersum.

1. C. foliis verticillatis octonis dichotomo-bigeminis dorso dentatis spinulosis, floribus axıllaribus solitariis sessilibus, fructibus 3-spinosis.—Willd. sp. pl. 4. p. 405. Icon. Engl. bot. 947.

In ditches and stagnant waters, floating: New York to Virginia. 4. July, Aug. v. v. Flowers exceeding

small.

## II. DI-PENTAGYNIA.

## 441. CALLIGONUM. Gen. pl. 834.

canescens.

- 1. C. dioicum, pulverulento-tomentosum; foliis lanceolatis, floribus axillaribus glomeratis in apice ramulorum subspicatis, fructibus alatis, alis venosis cristato-dentatis.
  - In the plains of the Missouri, near the Big-bend. 17.

    July, Aug. v. s. in Herb. Lewis Flowers exceeding small. Goats delight to feed upon this shrub.

## 442. DATISCA. Gen. pl. 1543.

hirla.

1. D. caule hirsuto, foliis pinnatis, foliolis basi confluentibus.— Willd. sp. pl. 4. p. 823.

In Pensylvania. Kalm. 4. +. Flowers yellow, small, in terminal panicles. I never had an opportunity of seeing this plant myself.

## 443. MENISPERMUM. Gen. pl. 1544.

canadense.

 M. foliis peltatis cordatis subrotundo-angulatis, racemis compositis.— Willd. sp. pl. 4. p. 824. B. M. foliis lobatis.

M. virginicum. Willd. sp. pl. 4. p. 824. excl. syn. Dill.

lobatum.

On the banks of rivers and sides of fertile hills, climbing among other shrubs. b. July. v. v. Flowers greenish yellow; berries black, resembling grapes. M. folio hederaceo, Dill. elth. t. 178. f. 219. belongs to M. carolinianum or Wendlandia.

Lyoni.

tricorne.

racemis simplicibus, floribus hexapetalis dodecandris. In Kentucky and Tennassee. 4. June, July. v. v. s. fl.; v. s. in Herb. Lyon. Berries large, black, oneseeded. Stem climbing to the height of twenty feet;

2. M. foliis cordatis palmato-lobatis longissime pedicellatis,

leaves large.

#### 444. DELPHINIUM. Gen. pl. 924.

1. D. pumilum; caule simplici, foliis palmato-multifidis, laciniis sublanceolatis obtusiusculis, fasciculo paucifloro, cornu recto corolla breviore, capsulis 3. compressis arcuatis subreflexo-patulis .- Mich. fl. amer. 1.

p. 314. On the side of shady and fertile hills, on the banks of

rivers: Virginia to Carolina; particularly plentiful about Harper's Ferry on the Potowmac, Virginia. 4. April, May. v. v. Not above eight inches high; flowers beautiful blue.

2. D. caule stricto simplici, foliis lineari-multipartitis, spica floribus breviter pedicellatis, cornu sursum arcuato, petalis villosissimis, capsulis ternis. Mich. fl. amer. 1.

D. carolinianum. Walt. fl. car. 155.

On the borders of woods, in sandy soil: Carolina and Georgia. On the banks of the Missouri and Mississippi. 4. May, June. v. s. Flowers beautiful skyblue, large. W. Bartram mentions this very handsome species in his Travels.

3. D. caule glabro subramoso, foliis tripartito-palmatis, laciniis lanceolatis subtrifidis, spicis strictis, cornu recto longitudine corollæ, capsulis ternis.—Willd. sp. pl. 2.

p. 1230.

D. tridactylum. Mich. fl. amer. 1. p. 314. D. urceolatum. Jacq. collect. 1. p. 153.

Icon. Mill. ic. t. 250. f. 2. Jacq. ic. rar. 1. t. 101.

azureum.

exaltatum.

In rocky shady places, in the moutains of Virginia and Carolina.  $\mathcal{U}$ . July. v.v. From two to four feet high.

Consolida.

4. D. pubescens; caule erecto ramoso, foliis lineari-multipartitis, cornu adscendente corollam subæquante, nectario monophyllo, capsula solitaria.—Willd. sp. pl. 2. p. 1226.

Icon. Fl. dan. 683.

In fields and woods: Pensylvania and Virginia. O. June, July. v. v. Common Lark-spur, probably introduced with the seeds of grain from Europe.

## 445. ACONITUM. Gen. pl. 928.

uncinatum.

1. A. floribus subpentagynis, foliis 3—5-lobis inciso-dentatis, corollarum galea longius extensa.—Willd. sp.

pl. 2. p. 1238.

In swamps and on the side of rivulets, on the high mountains of Virginia and Carolina. 4. June, July. v. v. v. Flowers large, of a fine blue and singular structure. On the foot of the Peaks of Otter and about the Sweet-springs another species occurs, with smaller flowers, and a climbing stem which sometimes attains the height of nine feet; but unfortunately I have no materials at present to give a correct description thereof.

## 446. AQUILEGIA. Gen. pl. 934.

canadensis.

1. A. cornibus rectis, staminibus exertis.—Willd. sp. pl. 2. p. 1247.

Icon. Bot. mag. 246. Rob. ic. 296.

In the crevices of rocks: Canada to Carolina. 4. April, May. v. v. Flowers scarlet, mixed with yellow.

## 447. CIMICIFUGA. Gen. pl. 993.

Serpentaria.

 C. foliis decompositis, foliolis ovato-oblongis incisis dentatis: dentibus mucronatis divaricatis, racemis virgatim paniculatis elongatis, floribus submonogynis, capsulis ovatis.

Actæa racemosa. Willd. sp. pl. 2. p. 1139.

Actæa monogyna. Walt. fl. car. 151.

Icon. Dill. elth. t. 67. f. 78. Schkuhr handb. 139. Pluk. amalth. t. 383. f. 3.

In shady, stony woods: Canada to Florida. 4. July, Aug. v. v. A tall stately plant; spikes long, white; generally known under the name of Black Snake-root.

C. foliis decompositis, foliolis ovatis incisis dentatis, dentibus acutis, racemis paniculatis nutantibus, floribus 5-gynis, capsulis ovatis uncinatis.—Willd. sp. pl. 2. p. 1244.

foetida.

Actæa Cimicifuga. Sp. pl. 722.

Icon. Lam. illustr. 487. Amen. acad. 7. t. 6. f. 2. On the north-west coast. 4. July, Aug. v. v.

3. C. foliis decomposito-biternatis, foliolis cordatis lobatis serrato-dentatis, racemis virgatim-paniculatis elongatis, floribus 2—5-gynis, germinibus glabris.

cordifolia.

C. americana. Mich. fl. amer. 1. p. 316.

In shady woods, on high mountains of Carolina. 21.

July. v. v.; v. s. in Herb. Lambert. Resembles the foregoing very much in general habit.

palmata.

 C. foliis simplicibus palmatis, floribus dichotome-paniculatis subcorymbosis polygynis, capsulis brevissimis subgloboso-capitatis.—Mich. fl. amer. 1. p. 316.

Actæa racemosa. Herb. Walt.

In the beds of mountain rivulets in Virginia and Carolina. 4. July, Aug. v. v. A very tall and handsome plant; the leaves very large, and the flowers in great abundance.

## 448. ASCYRUM. Gen. pl. 1225.

 A. pusillum, simplex; foliis ovalibus obtusis, pedicellis longis reflexis, floribus 1-2-gynis.—Mich. fl. amer. 2. p. 77. pumilum.

A. nummularifolium. Herb. Banks. mss.

In pine-barrens of Georgia. 4. June—Aug. v. s. Not above three inches high; flowers small, yellow, as are all the following species.

2. A. multicaule, diffusum; foliis sublanceolato-oblongis obtusis, corymbo terminali, floribus subsessilibus 2-gynis, caule subtereti.—Willd. sp. pl. 3. p. 1472.

Crux An \* dreæ.

A. multicaule. Mich. fl. amer. 2. p. 77.

In sandy fields and woods: New Jersey to Carolina. h. July. v. v. Not above a foot high; flowers pale yellow; petals narrow.

3. A. erectum, ramosum; ramis ancipitibus, foliis oblon- hypericoides.

gis basi biglandulosis, floribus terminalibus solifariis breviter pedicellatis 3 gynis.—Willd. sp. pl. 3. p. 1473.

A. stans. Mich. fl. amer. 2 p. 77.

In low overflowed open places, generally in sandy soil:

New Jersey to Carolina.  $\mu$ . July, Aug. v. v.

Flowers larger than the former species: it is from one to two feet high.

amplexicaule. 4. A. erectum; caule superne dichotome-paniculato, ramis anciputibus, folius ovato-oblongis amplexicaulibus, foliolis calycinis exterioribus cordatis, floribus 3-4-gynis.— Mich. fl. amer 2. p. 77.

A. stans. Willd. sp. pl. 3. p. 1475.

Hypericum tetrapetalum. Lam. encycl. 4 p. 153. In low grounds and woods: Virginia to Florida. 17. July, Aug. v. v. The flowers and leaves larger than any other sort.

## 449. HYPERICUM. Gen. pl. 1224.

#### \* Pentagyna.

Kalmianum.

 H. fruticosum, ramosissimum; ramulis 4-gonis, foliis lineari-lanceolatis, corymbis terminalibus 3—7-floris, laciniis calycis lanceolatis obtusiusculis, capsulis longitudine calycis.— Willd. sp. pl. 3. p. 1438.

H. Bartramianum. Mill. dict. n. 10.

In Pensylvania and Virginia. 12. June, July. v. s. in Herb. Lambert. v. v. in Hortis. From three to five feet high: the flowers of the whole genus are yellow.

pyramidatum. 2. H. herbaceum, erectum; caule subtetragono ramoso, foliis sessilibus oblongis acutis glabris, floribus terminalibus, stylis staminibus brevioribus, calycinis foliolis ovatis acutis.— Willd. sp. pl. 3. p. 1444.

H. amplexicaule. Lam. encycl. 4. p. 147.

Icon. Vent. malm. 118.

In Canada? 4. July, Aug. v. v. in Hortis. Flowers the size of H. Ascyrum.

ascyroides.

3. H. herbaceum, glabrum; caule simplici 4-gono, foliis sessilibus oblongis acutis glabris, floribus terminalibus, stylis longitudine staminum, calycinis foliolis ovatolanceolatis.—Willd. sp. pl. 3. p. 1443.

H. macrocarpuin. Mich. fl. amer. 2. p. 82.

In Canada and the western parts of New York and Pensylvania. 4. July, Aug. v.v. Flowers the largest of all the species here enumerated.

## \*\* Trigynæ. Fruticosæ.

4. H. tamis ancipitibus, foliis ovali-oblongis obtusis mucronatis basi angustatis, floribus terminalibus subsolitariis, calycinis foliolis oblongis acutis staminibusque petalis æquantibus, stylis coadunatis longitudine staminum. Mich. fl. amer. 2. p. 81.

H. elatum. Ait. kew. 3. p. 104?

In shady rocky places in Kentucky and Tennassee. 15. July, Aug. v. v. Resembles H. Ascyrum very much; the leaves of the calyx are broad, and sometimes longer than the petals.

5. H. ramis ancipitibus, foliis ellipticis margine crispatorevolutis supra opacis subtus glaucis, floribus terminalibus subsolitariis sessilibus, calycinis foliolis ovatis acuminatis, petalis deflexis staminibus longioribus, sty-

lis coadunatis longitudine staminum.

In South Carolina and Georgia. Lyon. H. July, Aug. v. v. This elegant species grows to the height of about two feet or more. Every branchlet has from one to three large flowers, of a bright golden yellow; the petals turn downwards, and leave the large crown of stamina in an upright situation, which, with the beautiful red ovate germen in the centre, gives the flower a particularly pleasing appearance.

6. H. ramis ancipitibus, foliis lanceolato-linearibus obtusiusculis, corymbis axillaribus et terminalibus paucifloris, floribus primordialibus sessilibus staminibus stylisque longitudine petalorum, calycinis foliolis lanceolatis.—Willd. sp. pl. 3. p. 1453.

H. Kalmianum. Du Roi harbk. 1. p. 310.

In Virginia. Gronov. b. June—Aug. v. v. in Hortis. The most common and most hardy species in the gardens. I rather suspect its native country to be Canada, as most of the shrubby kinds coming from the southern parts are extremely tender.

7. H. ramis alato-4-gonis, foliis oblongo-lanceolatis obtusiusculis sessilibus, panicula pedunculata dichotoma nudiuscula, floribus solitariis subsessilibus, calycinis laciniis lanceolatis petalis duplo brevioribus, stylis coadunatis staminibus longioribus.—Mich. fl. amer. 2. p. 78.

H. lævigatum. Ait. kew. 3. p. 106? H. ligustrinum. Herb. Banks. Mss.

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frondosum.

amænum.

prolificum.

nudiflorum.

In Carolina. *Michaux*. h. July, Aug. v. v. Flowers small. Willdenow in the Species Plantarum considers this to be an herbaceous plant, whereas it certainly is a shrub.

glaucum.

8. H. ramis teretibus, foliis oblongis cordatis amplexicaulibus obtusiusculis lævigatis glaucis coriaceis, panicula divaricato-dichotoma foliosa, calycinis foliolis ovatis acutis petalis longioribus, staminibus petalis subæquantibus, stylis coadunatis.—Mich. fl. amer. 2. p. 78.

H. myrtifolium. Lam. encycl. 4. p. 180.

In Florida. Michaux. 12. July, Aug. v. v. Flowers large.

densiflorum.

g. H. ramosissimum; ramulis subteretibus, foliis linearilanceolatis obtusiusculis basi attenuatis, paniculis terminalibus composite-dichotomis subfoliosis densifloris, floribus solitariis pedicellatis, calycinis laciniis brevissimis ovatis deciduis, staminibus stylisque coadunatis petalis brevioribus.

H. rosmarinifolium. Lam. encycl. 4. p. 159?

On the dry ridges and savannahs of the Virginia mountains. h. June, July. v. v. About two feet high; flowers middle-sized, in very abundant and close panicles.

galioides.

10. H. ramulis tetragonis, foliis linearibus sessilibus margine revolutis, axillis fasciculato-foliolosis, paniculis terminalibus divaricato-dichotomis, petalis staminibus æquantibus calyce lineari vix longioribus, stylis coadunatis subexertis.—Lam. encycl. 4. p. 161.

In sandy moist places, near rivulets: New Jersey to Carolina. 1. July—Sept. v. v. About two feet high;

flowers the size of No. 9.

aspalathoides. 11. H. ramis subteretibus dichotomis, foliis fasciculatis linearibus acutis striatis, floribus solitariis axillaribus subsessilibus, staminibus petalis brevioribus, stylis coadunatis.—Willd. sp. pl. 3. p. 1451.

H. fasciculatum. Lam. encycl. 4. p. 160.

- In Carolina. Fraser. 12. +. Flowers of middle size.
- fasciculatum. 12. H. ramulis teretibus, foliis quasi verticillatim-fasciculatis lineari-lanceolatis acutis basi attenuatis petiolatis margine revolutis, pedunculis in apice ramorum axillaribus trifloris, flore medio sessili, calycibus foliiformibus, stylis coadunatis.—Willd. sp. pl. 3. p. 1452. excl. syn. Michaux.

H. axillare. Lam. encycl. 4. p. 161.

H. Coris. Walt. fl. car. 190.

In pine woods of Georgia and Florida. L. July. v.v. Flowers the size of H. perforatum.

13. H. ramulis angulosis, foliis confertis quasi verticillatim fasciculatis filiformi-linearibus convexis obtusis sessilibus, pedunculis in apice ramulorum axillaribus 1-3floris, calycibus foliiformibus, stylis coadunatis.

H. fasciculatum. Mich. fl. amer. 1. p. 80.

In Georgia. Enslen. v. s. in Herb. Enslen. Resembles the foregoing species in many respects.

#### \*\*\* Trigynæ. Herbaceæ.

14. H. erectum, ramosum; caule ancipiti, foliis oblongis obtusis pellucido-punctatis, panicula terminali brachiato-foliosa, petalis calyce acuto lanceolato duplo longioribus .-- Willd. sp. pl. 3. p. 1460.

H. virginicum. Walt. fl. car. 189. Icon. Fl. dan. 1043. Engl. bot. 295.

In old fields, meadows, and on dry hills; common. 4. June-Aug. v. v. Common St. John's Wort has probably been introduced from Europe, but become one of the most pernicious weeds, and is considered very injurious to horses; for, when they feed upon it. blindness and other diseases are said to be the consequence.

15. H. erectum, glabrum, nigro-punctatum; caule tereti corymbosum. ramoso, foliis amplexicaulibus oblongo-ovalibus obtusis, corymbis terminalibus brachiatis densifloris, calycinis laciniis lanceolatis acutis.—Willd. sp. pl. 3. p. 1457.

H. maculatum. Walt. fl. car. 189.

H. punctatum. Lam. encycl. 4. p. 164.

In shady woods: New England to Carolina; particularly in the range of the mountains. 4. June-Aug. v. v. Flowers pale yellow, smaller than the foregoing one.

16. H. erectum, ramosissimum, glabrum; caule subtetra- parviflorum. gono, foliis ovato-oblongis subcordatis obtusis nervosis sessilibus, paniculis terminalibus dichotomo-corymbosis, petalis calyce lanceolato brevioribus.--Willd. sp. pl. 3. p. 1456.

H. quinquenervium. Walt. fl. car. 190.

H. mutilum. Willd. sp. pl. 3. p. 1471.

In overflowed places: Canada to Carolina. 4. June-Sept. v. v. Flowers small; size very variable.

tenuifolium.

perforatum.

triplinerve. 17. H. erectum, subramosum; caule subancipiti, foliis linearibus patentissimis triplinerviis, floribus racemosopaniculatis, corolla inæquali, calycibus acutis petalisque serrato-glandulosis.—Vent. hort. cels 58.

On the banks of the Ohio. Michaux. 4. July, Aug. +. Flowers the size of H. perforatum, pale yellow.

dolabriforme. 18. H. erectum, ramosum; caule ancipiti, foliis linearilanceolatis patentibus obtusis, corymbo terminali dichotomo, calycibus inæqualibus lanceolatis, petalis dolabriformibus.—Vent. hort. cels 45.

On dry hills of Kentucky. Michaux. 4. June, July.

+. Flowers golden yellow.

angulosum.

19. H. erectum; caule tetragono, foliis oblongis acutis arcte sessilibus, panicula terminali dichotoma, ramis divaricatis distanter alternifloris, calycibus subcampanulatis, laciniis lanceolatis acutis inferne carinatis longitudine fere corollæ, petalis dente unico laterali. — Willd. sp. pl. 3. p. 1454? Mich. fl. amer. 2. p. 78.

H. denticulatum. Walt. fl. car. 190.

In bogs and cedar-swamps: New Jersey and Carolina. 2. June, July. v.v. About a foot high; flowers of a beautiful copper colour, of considerable size.

sphærocarpum. 20. H. erectum, glaberrimum,; foliis oblongis, panicula nuda dichotoma, dichotomis omnibus unifloris, stylis coadunatis, capsula globosa.—*Mich. fl. amer.* 2. p. 78. In Kentucky. *Michaux*. 4. +.

canadense.

21. H. erectum, pusillum, parviflorum; caule tetragono superne dichotomo, foliis sessilibus linearibus basi attenuatis, paniculæ ramis primariis oppositis, secundariis dichotomis, capsulis longis conoideis coloratis.—
Willd. sp. pl. 3. p. 1455.

In low gravelly soil; Canada to Carolina. ②. June—Aug. v. v. Flowers very small; capsules red.

Sarothra.

22. H. pusillum, erectum, setaceo-ramosissimum; quasi aphyllum; foliis minutis appressis, floribus in ramulis solitarie alternis 5—10-andris, capsulis oblongis 1-locularibus.—Mich. fl. amer. 2. p. 79.

H. nudicaule. Walt. fl. car. 190.

Sarothra gentianoides. Willd. sp. pl. 1. p. 1515.

Icon. Pluk. mant. t. 342. f. 2.

In dry sunny situations: New England to Carolina. O. June - Aug. v. v. A singular little species; flowers very small; the number of stamina is very variable, according to soil and situation.

23. H. erectum, simplicissimum, lanulosum; caule tereti, foliis oblongis adpressis, floribus paucis terminalibus.
— Mich, fl. amer. 2. p. 80.

simplex.

H. pilosum. Walt. fl. car. 199. H. ferrugineum. Herb. Banks. mss.

Ascyrum villosum. Willd. sp. pl. 3. p. 1474.

Icon. Pluk. alm. t. 245. f. 6.

In Lower Carolina and Georgia. O. July, Aug. v.s.

24. H. procumbens, glaberrimum; ramis ancipitibus summitate paucifloris, foliis linearibus enerviis patulis, calycinis foliolis oblongo-lanceolatis acutis, staminibus
corolla brevioribus, stylis coadunatis.—Mich. fl. amer.
2. p. 81. Willd. sp. pl. 3. p. 1450?

On dry sunny hills of Kentucky. Michaux. +. The

calyx is as large as the corolla.

#### 450. ELODEA. Adanson.

#### Hyperici sp. Linn.

1. E. foliis sessilibus amplexicaulibus cordato-oblongis ob- campanulata, tusissimis, fasciculis pedunculatis paucifloris axillaribus et terminalibus, corollis subcampanulatis, staminibus 9-12. levissime basi coalitis.

Hypericum virginicum. Willd. sp. pl. 3. p. 1455. Hypericum campanulatum. Walt. fl. car. 191.

Icon. Bot. rep. 552.

 β. E. foliis cordato-ovatis emarginatis, pedunculis axillaribus elongatis.

Hypericum emarginatum. Lam. encycl. 4. p. 154.
In bogs and wet meadows: Canada to Carolina. μ.
July—Sept. v. v. β. v. s. in Herb. Lambert. Flowers yellowish-red, very handsome.

 E. foliis sessilibus, corollis tubulosis, staminibus plusquam ad medium connatis.

Hypericum tubulosum. Walt. fl. car. 191.

In Carolina. Walter. +. I observed in the vicinity of the Dismal-swamp in North Carolina, a species belonging to this genus, of which I have no specimen in my Herbarium, and which probably may be the species alluded to by Walter. The leaves are elliptic and acute; the flowers nearly sessile in the axils of the leaves, solitary or by two or three; the petals are long and acute, pale red; capsules long, prismatic.

3. E. foliis petiolatis oblongo-ovalibus rotundato-obtusis,

petiolata.

tubulosa.

floribus oppositis axillaribus subsessilibus subternis, staminibus ad medium usque connatis, capsulis oblongis.

Hypericum petiolatnm. Walt. fl. car. 191.

Hypericum axillare. Mich. fl. amer. 2. p. 81.
On banks of lakes and rotten wood: Virginia and Carolina. 4. July, Aug. v. v.

## III. POLYGYNIA.

#### 451. ILLICIUM. Gen. pl. 940.

floridanum.

1. I. foliis acuminatis, petalis numerosis oblongis linearibusque.—Willd. sp. pl. 2. p. 1254.

Icon. Bot. mag. 439.

On the banks of the Mississippi, in West Florida. 12. May, June. v.v. Flowers dark purple, large; leaves of a very aromatic anise-scent, when bruised.

parviflorum.

2. I. foliis obtusis, petalis sex calyceque rotundatis concavis.

—Mich. fl. amer. 1. p. 326.

I. anisatum. Bartr. trav. 24. Icon. Vent. hort. cels 22.

In East Florida, on the banks of the river St. John. Michaux. 12. May, June. v. v. in Hortis. Flowers small, yellow.

## 452. MAGNOLIA. Gen. pl. 942.

grandiflora.

1. M. foliis perennantibus ovalibus crassis coriaceis, petalis dilatato-obovatis abrupte in unguem angustatis.— Willd. sp. pl. 2. p. 1255.

elliptica.

α. M. foliis oblongo-ellipticis subtus ferrugineis, floribus subcontractis. Ait. kew. 2. p. 251.
 Icon. Bot. rep. 518. Trew ehret. 33.

obovata.

β. M. foliis obovato-oblongis, floribus expansis. Ait. l. c.
 γ M. foliis oblongo-lanceolatis apice flexis concoloribus, floribus subcontractis. Ait. l. c.

Icon. Mill. ic. 172. Catesb. car. 61. Mich. arb. t. 1. In the forests of South Carolina and Georgia, reaching west to the Mississippi. 1/2. May—Aug. v. v. This stately tree, with its elegant foliage and large white flowers, is the prince of the forests of North America. The varieties here mentioned might easily be considered as good species, if there were not so many intermediate ones, which connect them too closely to-

gether. In Carolina it is known by the name of Big Laurel.

2. M. foliis ovalibus subtus glaucis, petalis obovatis basi attenuatis. - Willd. sp. pl. 2. p. 1256.

glauca.

a. M. foliis deciduis ovali-oblongis obtusiusculis. - Ait. kew. 2. p. 251.

latifolia.

Icon. Dill. elth. t. 168. f. 205. Catesb. car. 1. t. 39. Trew ehret. 9. Mich. arb. t. 2.

longifolia,

β. M. foliis perennantibus ellipticis utrinque acutis,—Ait. 1. c.

In swamps covered with wood: New Jersey to Carolina. β. Georgia and Florida. h. May—July. v. v. A small tree; flowers white, very fragrant. The variety  $\beta$ , is a taller tree, the branches more upright, and the leaves narrow and long; it might with propriety be considered a distinct species. This species is known by the names of Swamp Sassafras, Sweet Bay, Swamp Laurel, and Beaver-wood.

3. M. ramis medullosis fragilibus, foliis amplisissimis ob- macrophylla. longe subcuneato-obovalibus basi sinuata subauriculatis

amer. 1. p. 327.

Icon. Mich. arb. t. 7.

In the deep forests of Tennassee. b. May-July. v. v. s. fl. This stately small tree, with its extremely large leaves and white flowers, tinged at the bottom with red, which are larger than M. grandiflora, is one of the most ornamental trees America produces.

subtus glaucis, petalis 6. ovatis obtusis.—Mich. fl.

4. M. foliis amplis oblonge subcuneato-obovalibus acutis, junioribus holosericeis, petalis 9. ellipticis acutis, exterioribus reflexis. - Willd. sp. pl. 2. p. 1258.

tripetala.

M. umbrella. Lam. encycl. 3. p. 644.

Icon. Catesb. car. 2. t. 80. Mich. arb. t. 5.

In the mountains of Virginia and Carolina, b. June. July. v. v. Leaves large; flowers white, the size of M. grandiflora, and very fragrant. It is generally known by the name of Umbrella-tree; in the mountains they call it Elk-wood.

5. M. foliis ovalibus acuminatis subtus pubescentibus, petalis obovatis obtusiusculis. - Willd. sp. pl. 2. p. 1257.

Icon. Catesb. car. 3. t. 15. Mich. arb. t. 3.

In high mountain-valleys, in fertile soil: Pensylvania to Carolina. b. June, July. v. v. Flowers a dim yellow mixed with a faint blue, not much larger than those acuminata.

of M. glauca. It is generally known by the name of Cucumher-tree, and its fruits are used as a wholesome bitter among the inhabitants.

cordata.

- 6. M. foliis cordatis subtus subtomentosis, petalis lanceolato-oblongis acutis.—Mich. fl. amer. 1. p. 328. Icon. Mich. arb, t. 4.
  - On dry ridges of mountains in Upper Carolina and Georgia. h. v. v. s. fl. Flowers yellow.

auriculata.

7. M. foliis amplis obovato-lanceolatis acutis subtus glaucis basi cordatis auriculatis, lobis approximatis, petalis ovatis acutis sub-unguiculatis.—Willd. sp. pl. 2. p. 1258.

M. Fraseri. Walt. fl. car. 159.

Icon. Bot. mag. 1206. Bot. rep. 573. Mich. arb. t. 6. In the Allegany mountains, from the head-waters of the Susquehanna to Carolina. b. April, May. v. v. A beautiful tree; flowers yellowish white, large. The bark of this and some of the foregoing species is exteemed a valuable medicine, particularly in intermitting fevers; from which circumstance it is known in some places by the name of Indian Physic.

pyramidata.

- 8. M. foliis rhomboideo-obovalibus abrupte acutis concoloribus basi subcordatis auriculatis, lobis divaricatis, petalis lanceolatis sensim acutis.—Bartr. trav. p.....
  M. auriculata. Wich. fl. amer. 1. p. 328.
  - In the western parts of Carolina and Georgia. 1/2. April, May v. v. This species has generally been confounded with the foregoing one, from which it not only differs in the distinctions given above, but in general habit: the tree is of a more upright pyramidal growth, and the leaves not one fourth the size of M. auriculata.

## 453. LIRIODENDRON. Gen. pl. 941.

tulipifera.

1. L. foliis abscisso-truncatis 4-lobatis, calyce triphyllo.— Willd. sp. pl. 2. p. 1254.

acutiloba.

a. L. lobis acutis acuminatisque. Mich. fl. amer. 1. p. 326. 1con. Bot. mag. 275. Schmidt arb. 48. Catesb. car. 1. t. 48. Mich. arb. t. . . .

obtusiloba.

β. I. lobis rotundato-obtusissimis. Mich. l. c
 In fertile ground: Canada to Florida. β. in Pensylvania.
 ξ. June, July. v. v. A highly ornamental and use-

ful timber tree; flowers yellow and red, mixed with green. Generally known by the name of *Tulip-tree*, or *White* and *Yellow Poplar*.

#### 454. PORCELIA. Prodr. fl. peruv. p. 84.

Orchidocarpum. Mich. fl. amer. 1. p. 329.

1. P. foliis glabriusculis oblonge cuneato-obovatis, petalis exterioribus orbiculatis, fructibus magnis carnosis.—

Pers. syn. 2. p. 95.

Anona triloba. Willd. sp. pl. 2. p. 1267.

Orchidocarpum arietinum, Mich. fl. amer. 1, p 329.

Icon. Catesb. car. 2. t. 83. Trew ehret. 5. Duham. arb. 1. t. 19.

On the overflowed banks of rivers: Pensylvania to Florida. 12. March, April. v. v. A small tree; flowers dark brown; fruits large, eatable.

2. P. foliis cuneato-obovatis basi acutis ramulisque rufopubescentibus, petalis omnibus ovalibus, fructibus ovatis subcarnosis.—*Pers. syn.* 2. p. 95.

Orchidocarpum parviflorum. Mich. fl. amer. 1. p. 329. In shady woods, near rivers and lakes: Virginia to Georgia. L. April, May. v. v. A low sbrub, sometimes not above two feet high, when in full fruit; flowers small, dark purple.

3. P. foliis elongato-lanceolatis cuneatisve lævigatis, petalis exterioribus majoribus obovato-oblongis, interioribus longioribus.—Pers. syn. 2. p. 95.

Orchidocarpum pygmæum. Mich. fl. amer. 1. p. 330.

Anona pygmæa. Willd. sp. pl. 2. p. 1268.

Icon. Bartr. trav. t. 1.

In sandy fields: Georgia and Florida. 12. v. v. Flowers the size of Anona squamosa; the whole shrub not above a foot high.

4. P. foliis cuneato-obovalibus basi obtusis ramulisque rufopubescentibus, petalis exterioribus majoribus obovatis, interioribus oblongis.—Pers. syn. 2. p. 95.

Orchidocarpum grandiflorum. Mich. fl. amer. 1. p. 330.

Anona obovata. Willd. sp. pl. 2. p. 1269.

Icon. Bartr. trav. t. 2.

In sandy woods, in shady places: Georgia and Florida. b. May. v. s. A small shrub: flowers very large in proportion, white.

trilola.

parviflora.

pygmæa.

grandiflora.

455. ATRAGENE. Gen. pl. 949. Sims in bot. mag. 887.

americana.

- 1. A. foliis quaternis ternatis, foliolis cordatis subintegerrimis, nectariis acutis. Sims l. c. cum icone.
  - In shady places, on the side of rivulets, climbing and creeping among loose rocks: New York and Pensylvania, near the foot of the Blue-mountains. b. May, June. v. v. Flowers large, purple.

#### 456. CLEMATIS. Gen. pl. 960.

virginica.

- 1. C. scandens; foliis ternatis, foliolis ovatis subcordatis inciso-dentatis lobatisque, corymbis dichotomis paucifloris, petalis staminibus longioribus, floribus dioicis. -Willd. sp. pl. 2. p. 1200.
  - In hedge-rows and among small shrubberies on the side of woods: Canada to Florida. h. June-Aug. v.v.

Flowers small, white, and fragrant.

cordata.

- 2. C. scandens; foliis pinnatis bijugis, foliolis cordatis lobatis acuminatis inciso-dentatis, dentibus mucronatis, racemis compositis elongatis multifloris, staminibus petalis subæquantibus, floribus dioicis.
  - On high mountains: Virginia. h. July. v.v. Flowers resembling the former species. In general appearance it approaches near to C. Vitalba.

holosericea.

- 3. C. scandens, tota holosericeo-pubescens; foliis ternatis oblongo-lanceolatis integris utrinque pubescentibus, corymbis trichotomis paucifloris, petalis linearibus staminibus longioribus, floribus dioicis.
  - In Carolina. h. v. s. in Herb. Walter. The flowers small, white; tails of the seeds very long, feathered.

Wolteri.

4. C. scandens; foliis pinnatis cirrhosis trijugis, foliolis divaricatis petiolatis lineari-lanceolatis acutis integerrimis subtus glaucis, floribus solitariis, petalis ellipticis staminibus duplo longioribus.

In Carolina. h. v. s. in Herb. Walter. Flowers white.

erispa.

5. C. scandens; foliis pinnatis ternatisque, foliolis divaricatis ovato-lanceolatis acutis trilobisve integerrimis, floribus solitariis, corollis campanulatis acuminatis revolutis margine undulatis, aristis seminum subulatis nudis .- Willd. sp. pl. 2. p. 1289.

Jcon. Dill. elth. t. 73. f. 84.

In hedges and among bushes on the side of rivers: Vir-

ginia and Carolina. h. July, Aug. v. v. Flowers large, purple.

6. C. scandens; foliis pinnatis, foliclis ovatis utrinque acutis glabris simplicibus pedicellatis, pedunculis terminalibus solitariis, corollis cernuis cylindricis, petalis subcoriaceis undulatis conniventibus, aristis seminum plumosis. - Sims in bot. mag. 1160.

cylindrica.

C. Viorna. Bot. rep. 71.

In Virginia and Carolina. b. June-Aug. v. v. Flowers large, of a fine pale purplish blue.

reticulata.

7. C. scandens; foliis pinnatis 4-jugis, foliolis ovatis utrinque obtusis omnibus integris petiolatisque membranaceis utrinque reticulato-venosis, floribus solitariis, petalis subcoriaceis, aristis seminum plumosis.— Walt. fl. car. 156. Mich. fl. amer. 1. p. 318.

C. rosea. Abbot insect. t....

In Georgia and Carolina. h. June, July. v. s. in Herb. Walter. Flowers resembling the following species, pale purplish-red.

8. C. scandens; foliis divaricato-compositis decompositisque, foliolis ovali-lanceolatis utrinque acutis trifidisque integerrimis, floribus solitariis campanulatis, petalis

crassis acuminatis.—Willd. sp. pl. 2. p. 1288. Icon. Bot. rep. 71. Dill. elth. t. 118. f. 144.

In hedges and copses: Virginia and Carolina. b. June -Aug. v. v. Flowers dark blue, large.

9. C. erecta, simplex; foliis hirsutissimis bipinnatifidis in- hirsutissima. cisis, laciniis linearibus acutis, caulinis compositemultifidis, pedunculo terminali solitario, flore erecto campanulato, petalis 4. erectis ovatis obtusiusculis

apice reflexis.

On the plains of Columbia river. 4. May. v. s. in Herb. Lewis. The whole plant is covered with a close coat of long hairs like Anemone Pulsatilla, which it very much resembles in several respects. I consider all the division of Anemones with caudated seeds to belong to this genus, or at least to one separate from Anemone.

10. C. erecta, simplex, pubescens; foliis simplicibus ovalibus integerrimis, junioribus calycibusque extus incano-sericeis, pedunculo terminali solitario, flore cernuo. - Mich. fl. amer. 1. p. 319.

C. ochroleuca. Willd. sp. pl. 2. p. 1294.

Icon. Bot. mag. 1175.

Viorna.

sericea.

On the banks of rivers: Pensylvania and Virginia; rare. 4. May—July. v. v. About a foot high; flowers inside yellow.

#### 457. ANEMONE. Gen. pl. 948.

nemorosa.

1. A. caule unifloro, foliis caulinis ternis ternatis, foliolis cuneatis inciso-lobatis dentatis acutis, corollis 5-6-petalis, seminibus ovatis stylo brevi uncinatis.—Willd. sp. pl. 2. p. 1281.

Icon. Fl. dan. 549. Engl. bot. 355.

- quinquefolia.
- β. A. foliis lateralibus profunde bipartitis. Willd. sp. pl. 2.
   p. 1281.

Icon. Pluk. alm. t. 106. f. 3.

In shady woods, round the roots of trees: Canada to Carolina.  $\mathcal{U}$ . March, April. v,v. Flowers white, with a tinge of red on the under side; sometimes nearly double. Var.  $\beta$ . can never be considered as a species, as there are intermediate varieties between it and the original species.

tancifolia.

2. A. caule unifloro, foliis caulinis ternis ternatis, foliolis lanceolatis crenato-dentatis, corollis 5-petalis, seminibus ovatis stylo brevi uncinatis.

A. trifolia. Willd. sp. pl. 2. p. 1281?

On high mountains, in boggy soil: Pensylvania and Virginia. 4. May—July. v. v. Resembles the foregoing species; flowers larger, and clear white.

cuneifolia.

3. A, caule unifloro involucrato, foliis ternatis, foliolis sessilibus cuneatis apice truncato-crenatis, involucro 3-phyllo, corollis 5-petalis, seminibus capitato-globosis lanatis acuminatis.— Juss. in annal. du mus. 3. p. 248. t. 21. f. 1.

A. parviflora. Mich. fl. amer. 1. p. 319.

A. tenella. Herb. Banks.

On the banks of rivulets, near Hudson's Bay and Labrador. 2. March—May. v. s. in Herb. Dickson. Flowers white, the size of No. 1.

tenella.

 A. caule unifioro involucrato, foliis subbiternatis, foliolis 3-fidis seu 3-dentatis acutis involucro 3-partito, laciniis incisis, petalis 12—15-linearibus, seminibus lanatis mucronatis, radice tuberosa.

A. caroliniana. Walt. fl. car. 157.

On the banks of the Missouri. M. Lewis. In Carolina. Walter. 4. May. v. s. in Herb. Lewis Flowers

purple, small; the whole plant very slender and delicate; roots tuberous.

5. A. caule unifloro nudo, foliis palmatis longius petiolatis, corolla 5-petala, radice tuberosa.

Thalictrum carolinianum. Walt. fl. car. 157.

Walter. U. +. I was not able to find In Carolina. any information respecting this plant in the Walterian Herbarium, but consider it to belong rather to this genus than to Thalictrum.

6. A. floribus umbellatis involucratis, foliis radicalibus bi- thalictroides. ternatis, foliolis subcordatis 3-dentatis, involucro 6phyllo, foliolis petiolatis conformibus, umbella pauciflora, seminibus nudis striatis, radice tuberosa.-Willd. sp. pl. 2. p. 1284.

Thalictrum anemonoides. Mich. fl. amer. 1. p. 322.

Icon. Bot. mag. 866. Annales du mus. 3. t. 21. f. 2. a. & b. Pluk. alm. t. 106. f. 4. Willd. hort. berol. 44.

β. A. involucro unifloro. Gronov. virg.

In woods, frequent: Canada to Carolina. 4. March -May. v. v. Flowers white. A beautiful double variety is cultivated in the gardens, which in delicacy of figure and colour exceeds any other species of this elegant genus.

7. A. floribus umbellatis involucratis, foliis radicalibus mul- narcissiflora. tifido-palmatis incisis, laciniis linearibus, involucris sessilibus incisis, umbella pauciflora, pedicellis involucro longioribus. - Willd. sp. pl. 2. p. 1283.

In Canada and on the north-west coast. 2. April, May. v. s. Flowers white.

8. A. caule dichotomo, foliis radicalibus palmatis, caulinis pensylvanica. sessilibus amplexicaulibus 3-fidis: infimis ternatis: lobis acute lanceolatis inciso-serratis, pedunculis solitariis unifloris, seminibus capitulo globoso nudis subulato-rostellatis. - Willd. sp. pl. 2. p. 1280.

A. aconitifolia. Mich. fl. amer. 1. p. 320.

In meadows and on the borders of woods: Canada to Pensylvania. 4. June, July. v. v. Flowers large, white; anthers yellow.

9. A. caule dichotomo, foliis caulinis omnibus oppositis amplexicaulibus trifidis, lobis cuneato-lanceolatis superne inciso-serratis, pedunculis solitariis unifloris, seminibus capitulo globoso nudis recurvato-mucronatis. sp. pl. 2. p. 1280.

A. irregularis. Lam. encycl. 1. p. 167.

Walteri.

uniflora.

dichotoma.

Icon. Linn. fil. dec. 2. t. 15.

In wet woods and natural meadows: Canada and the western parts of New York. 4. May, June. v.v. Flowers white, with a tinge of red on the under side, smaller than the foregoing species.

virginiana.

10. A. caule dichotomo, foliis ternis ternatis, superioribus oppositis, foliolis inciso-lobatis serratisque acutis, pedunculis solitariis unifloris elongatis, seminibus capitulo oblongo lanatis mucronatis.—Willd. sp. pl. 2. p. 1279.

Icon. Herm. parad. t. 18.

In woods, on the side of dry sandy hills: Canada to Carolina. 4. May, June. v. v. Flowers small, greenish-yellow.

#### 458. THALICTRUM. Gen. pl. 951.

Cornuti.

T. foliis supradecompositis, foliolis ovatis trifidis, paniculis terminalibus.—Willd. sp. pl. 2. p. 1296.
 Icon. Corn. canad. 186.

On the banks of rivers and in wet meadows: Canada to New England. 4. June, July. v. v. From two to three feet high; flowers small and greenish-yellow.

dioicum.

2. T. lævigatum; foliis supradecompositis, foliolis subrotundis cordatis obtuse-lobatis subtus glaucis lævibus, paniculis axillaribus filiformibus folio brevioribus, floribus parvis in umbellis paucifloris.—Willd. sp. pl. 2. p. 1296.

T. lævigatum. Mich. fl. amer. 1. p. 322.

In shady woods and on the banks of rivers: Canada to Virginia.  $\mathcal{U}$ . May—July. v. Not above a foot high; flowers white.

3. T. caule striato, foliis supradecompositis, foliolis ovatis lanceolatisque rugosis venosis obtuse-lobatis, paniculis amplis terminalibus.—Willd. sp. pl. 2. p. 1298.

On the banks of rivers and in swamps: Pensylvania to Carolina. 4. June—Aug. v.v. Very tall, some-

times above five feet high; flowers white.

pubescens.

rugosum.

4. T. tenui tomento pubescens; foliis supradecompositis, foliolis ovatis subcordatis cuneatisque apice 3-lobis, supra subrugosis, subtus subtomentosis, paniculis terminalibus, pedicellis subumbellatis divaricatis, floribus polygamis.

T. polygamum. Muhlb. mss.

- On the banks of ditches and rivulets: Pensylvania and Virginia. 4. June—Aug. v. v. A tall species; flowers white.
- 5. T. caule foliis duplo altiore, foliis compositis, foliolis purpurascens. subrotundis 3-fidis incisis, paniculis nudiusculis, floribus cernuis, staminibus coloratis.—Willd. sp. pl. 2. p. 1299.

On dry sunny hills: Pensylvania and Virginia. 4. May, June. v.v. A small plant; stem and filaments

purple.

5. T. foliis simplicibus 5-lobis serratis, floribus corymbosis.

— Willd. enum. 585.

In Carolina, Willdenow. 4.+. Flowers resembling those of T. speciosum.

459. HYDRASTIS. Gen. pl. 958.

1. H. caule superne opposite diphyllo, foliis petiolatis basi emarginatis palmatis serratis incisis, pedunculo terminali solitario unifloro.—Willd. sp. pl. 2. p. 1340.

Icon. Mill. ic. t. 285.

In shady woods, on fertile soil and among rocks: Canada to Carolina, principally in the Allegany mountains.

2. April, May. v. v. Flowers pale rose-coloured; berry red. The roots are yellow, and afford a fine dye.

460. BRASENIA. Gen. pl. 938.

Hydropeltis. Mich. ft. amer. 1. p. 323.

1. B. foliis centro peltatis ovalibus integerrimis, pedunculis solitariis unifloris.

Hydropeltis purpurea. Mich. fl. amer. 1, p. 324, t. 29. Icon. Bot. mag. 1147. Pluk. alm. t. 349. f. 3.

In lakes and slow-flowing waters: New Jersey to Carolina. 4. June—Aug. v. v. Floating on the water; the whole plant has a purple colour; the flowers dark purple, the size of Caltha; the petioles and under surface of the leaves are covered with a transparent gelatinous substance.

## 461. CALTHA. Gen. pl. 957.

 C. caule erecto unifloro unifolio, foliis radicalibus cordato ovatis obtusissimis paucidentatis multinervibus, petalis ellipticis.

ranunculinum.

canadensis.

peltata.

ficarioides.

Ranunculus Ficaria. Walt. fl. car. 159.

In shady cedar-swamps of New Jersey and Carolina.

4. June, July. v. v. Flowers deep yellow, the size of Ranunculus Ficaria.

integerrima.

2. C. caule erecto corymboso, foliis integerrimis sinu clauso orbiculato-cordatis, floralibus sessilibus retitformibus basi obsolete crenatis, petalis obovalibus.

In wet meadows and small rivulets: New England to Virginia. 2. May—July. v. v. Flowers yellow,

smaller than the following species.

palustris.

3. C. caule erecto corymboso, follis cordato-reniformibus: lobis patulis, circumcirca acuté-crenatis, floralibus subsessilibus, petalis ovatis.—Willd. sp. pl. 2. p. 1338.

Icon. Fl. dan. 668. Engl. bot. 506.

In low boggy meadows: Canada to Pensylvania. 4. April—June. v. v. Flowers golden yellow, large.

flabellifolia.

4. C. caule procumbente, foliis dilatato-reniformibus: lobis patentissimis, circumcirca argute acuteque dentatis, pedunculis axillaribus solitariis unifloris, petalis obovatis, capsulis rostro adunco.

In a large sand-spring on Pokono-mountain, Pensylvania.

21. July, Aug. v. v. Flowers yellow, the size of Ranunculus arvensis. This plant has some affinity with C. natans Willd. sp. pl. 2. p. 1330. of which I have seen perfect specimens in the Herbarium of A. B. Lambert, Esq., collected by Pallas in the most eastern parts of Siberia, under the name of C. pusilla, which I distinguish by the following diagnosis: Caltha natans, caule procumbente natante, folis cordato-reniformibus: lobis subapproximatis, postice obsolete crenatis, antice dentatis, petalis ovalibus, capsulis rostro recto. The flowers of that species are white, with a tinge of red, of the same size as the present species.

462. COPTIS. Salisb. in linn, trans. 8. p. 305.

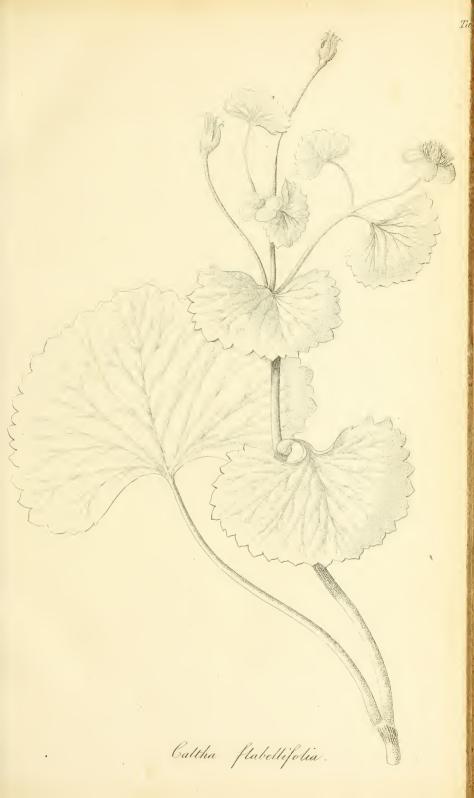
trifolia.

1. C. foliis ternatis, foliolis rotundato-obovalibus acuminato-crenatis, scapo unifloro.—Salisb. l. c.

Helleborus trifolius. Willd. sp. pl. 2. p. 1338.

Icon. Fl. dan. 566.

In cedar-swamps and mountain bogs: Canada to Virginia. 4. May—July. v. v. A delicate small plant; flowers white.





- 2. C. foliis biternatis, foliolis subpinnatifidis, scapo bifloro. asplenifolia. -Salisb. l. c. p. 306.
  - On the north-west coast. Menzies. 4. v. s. in Herb. Banks. Flowers larger than the foregoing one.

## 463. TROLLIUS. Gen. pl. 954.

1. T. petalis 5. obtusis patulis, nectariis staminibus brevioribus. Salisb. in linn. trans. 8. p. 303.

laxus.

- T. americanus. Donn catal. T. pentapetalus. Herb. Banks.
- In shady wet places, on the mountains of New York and Pensylvania. 4. May-July. v. v. Flowers yellow, the size of Ranunculus acris.

### 464. HEPATICA. Willd. enum....

1. H. foliis trilobis integerrimis, scapis unifloris.—Willd. triloba. enum.

Anemone Hepatica. Willd. sp. pl. 2. p. 1273.

Icon. Bot. mag. 10. Fl. dan. 610.

a. H. lobis rotundatis obtusis. β. H. lobis ovalibus acutis.

In woods, on the side of fertile and rocky hills: Canada to Carolina. 4. March-May. v. v. Flowers blue or purple; generally smaller than in the European plant.

## 465. RANUNCULUS. Gen. pl. 953.

- \* Foliis simplicibus, integris.
- 1. R. glaber, caule declinato, foliis angusto-lanceolatis acutis integerrimis denticulatisque, inferioribus petiolatis, pedunculis terminalibus axillaribus unifloris, calycibus subreflexis. - Willd. sp. pl. 2. p. 1307.

Icon. Fl. dan. 575. Engl. bot. 387.

- In inundated places and small rivulets: Pensylvania and Virginia. 4. July—Sept. v.v. Flowers deep yellow, small.
- 2. R. adpresso-pilosus; foliis lanceolatis subdenticulatis acuminatis subsessilibus, caule erecto multifloro.— Willd. sp. pl. 2. p. 1308.

Icon. Engl. bot. 100. Fl. dan. 755.

On the banks of rivers, among scirpus and other river plants: Pensylvania and Virginia. 4. July, Aug. VOL. II.

Flammula.

obtusa.

acuta.

Lingua.

v. v. Resembles the preceding one, but is upright, the flowers larger and in greater abundance.

pusillus.

- 3. R. glaber; foliis petiolatis, inferioribus ovatis dentatis, superioribus lineari-lanceolatis apice dentatis, supremis linearibus bracteiformibus, pedunculis alternis solitariis umfloris.
  - R. flammula. Walt. fl. car. 159. Mich. fl. amer. 1. p. 321.
  - June Aug. v. s. in Herb. Enslen. A small species, with exceeding small flowers, petals pale yellow.

filiformis.

- 4. R. glaber, pusillus; caulibus filiformibus repentibus geniculatis, geniculis unifloris, foliis lineari-subulatis obtusis. Mich. fl. amer. 1. p. 320.
  - In inundated places, on the river St. Laurence, Hudson's Bay, and Labrador. 4. June, July. v. s. in Herb. Banks. Resembles R. reptans very much.

Cymbalın ia.

- 5. R. glaber, minimus, filiformis, repens, ad genicula radicans; foliis cordato-reniformibus obtuse 5-dentatis, pedunculis radicalibus solitariis plerumque bifloris, petalis linearibus, fructibus oblongis.
  - In saline marshes near the salt-works of Onondago, New York. 4. June, July. v.v. Flowers the size of the foregoing one, pale yellow, sometimes white. This little plant has some resemblance to R. salsuginosus of Pallas, whose specimens I had an opportunity of seeing in the collection of A. B. Lambert, Esq. and which may be distinguished by the following diagnosis: R. glaber, filiformis, repens, ad genicula radicans; foliis ovatis ratiter cordatis apice 3-dentatis, pedunculis radicalibus solitariis plerumque unifloris, petalis obovatis, fructibus subglobosis. The flowers are more than ten times larger than in R. Cymbalaria.

### \*\* Foliis dissectis et divisis.

abortivus.

6. R. glaber; caulibus striatis inferne nudis, foliis radicalibus cordato-reniformibus obtuse-crenatis, caulinis petiolatis ternatis angulatis, superioribus sessilibus, ramulis subtrifloris.—Willd. sp. pl. 2. p. 1314.

In wet places on the side of ponds and ditches: New York to Carolina. 2. July, Aug. v. v. Flowers small, yellow.

nitidus.

 R. glaberrimus; caulibus fistulosis, foliis radicalibus rotundato-subreniformibus obtuse-crenatis, caulinis sessilibus digitatis, foliolis incisis, laciniis obtusis, seminibus subglobosis glaberrimis.—Walt. fl. car. 159. Lam.

encycl. 6. p. 126.

In inundated grounds: New York to Carolina. 4.
July, Aug. v. v. Flowers small; petals white. This and the foregoing one are nearly related to each other, and probably only varieties of the same species, though distinguished by Walter and Lamarck.

8. R. glaber; foliis inferioribus palmatis, superioribus sessilibus digitatis, fructibus oblongis.— Willd. sp. pl. 2.

p. 1315.

Icon. Fl. dan. 571. Engl. bot. 681.

In ponds and ditches: Canada to Virginia. 4. June—Aug. v. v. Flowers yellow, small.

 R. pubescens; foliis radicalibus reniformibus tripartitis inciso-crenatis, caulinis sessilibus digitatis linearibus, caule multifloro, calyce colorato patente.—Willd. sp. pl. 2. p. 1314.

Icon. Fl. dan. 665. Engl. bot. 624.

In old meadows and woods: Pensylvania. 4. May, June. v. v. Flowers yellow, middle-sized.

10. R. pusillus, glaber; foliis radicalibus subcordato-reniformibus inciso-dentatis, caulinis sessilibus digitatis, laciniis linearibus integerrimis, caule paucifloro, petalis oblongis calyce subæquantibus.

In Labrador. Colmaster. 4. May, June. v. s. in Herb. Dickson. Flowers small, yellow; it approaches

very near to R. nivalis.

R. pilosus, erectus, ramosus; foliis ternatis trifidis incisis subtus pilosis, pedunculis teretibus, calycibus reflexis, petalis calyce subæquantibus.—Willd. sp. pl. 2. p. 1323.

R. canadensis. Jacq. ic. rar. 1. t. 105.

In low meadows: Canada to Pensylvania; rare. 24
July, Aug. v. v. Flowers the size of R. acris.

12. R. hirsutissimus; foliis compositis: ternatis trifidis incisis dentatisque, caule erecto multifloro, pedunculis sulcatis, calycibus retroflexis, radice bulbosa.—Willd. sp. pl. 2. p. 1324.

Icon. Fl. dan. 551. Engl. bot. 515.

In meadows and grass plots, common. 4. May—Aug. v. v.

13. R. hirsutus; foliis ternatis inciso-lobatis, caule erecto

sceleratus.

auricomus.

pygmæus.

pensylvanicus.

bullosus.

Philonotis.

acris.

multifloro, pedunculis sulcatis, calycibus retroflexis acuminatis, seminibus tuberculatis, radice fibrosa.—Willd. sp. pl. 2. p. 1324.

R. hirsutus. Curt. lond. 2. t. 40. Engl. bot. 1504.

In old meadows and low wet fields: New England to Pensylvania. 4. June—Oct. v. v., Resembles the foregoing one.

repens. 14. R. hirsutus; foliis compositis: ternatis trifidis incisis, sarmentis repentibus, pedunculis sulcatis, calycibus patulis. Willd. sp. pl. 2. p. 1325.

Icon. Fl. dan. 795. Engl. bot. 516.

In shady wet woods, particularly in the mountains: Pensylvania to Virginia. 4. July, Aug. v. v. Flowers deep yellow.

 R. adpresso-pilosus; foliis tripartito-multifidis, summis linearibus, pedunculis teretibus, calycibus patulis.— Willd. sp. pl. 2. p. 1326.

Icon. Engl. bot. 652.

In wet meadows, in the western parts of New York and Canada. 4. May—Aug. v.v.

lanuginosus. 16. R. hirsutus; foliis trifidis lobatis dentatis holosericeis, pedunculis elongatis teretibus, calycibus patulis.—Willd. sp. pl. 2. p. 1327.

Icon. Fl. dan. 397.

In old fields and meadows: Pensylvania to Carolina. 4.

June—Oct. v. v.

tomentosus. 17. R. villosissimus, humilis; caule repente 1-2-floro, foliis tomentosis trilobatis, calycibus hispidis subreflexis.—

Lam. encycl. 6. p. 127.

In Carolina. Bosc. 4. +. Flowers yellowish-white.

marylandicus. 18. R. pubescens; caule simplici subnudo, foliis radicalibus ternatis, foliolis trilobatis, lobis acutis incisis, calycibus reflexis. Lam. encycl. 6. p. 126.

In shady woods: Pensylvania to Virginia. 4. May—July. v. v. Flowers pale yellow.

recurvatus. 19. R. pubescens; foliis trilobis, lobis basi cuneiformibus, apice incisis acutis, caule multifloro, corolla calycibusque recurvis, petalis linearibus.—Lam. encycl. 6. p. 125.

In shady woods: New York to Carolina. 4. June—Aug. v. v. Flowers small; petals almost white.

septentriona- 20. R. glabriusculus; foliis membranaceis glabris ternatis, lis. foliolis subtrilobatis incisis acutis, caule petiolisque

basi hirsutis, pedunculis subbifloris, calycibus reflexis. Lam. encycl. 6. p. 125.

In North America. Lamarck. 4. +. Flowers pale yellow.

21. R. hirsutissimus, erectus; foliis ternatis, foliolis acute lobatis, caulibus infra primum pedunculum nudis paucifloris, calyce appresso. *Mich. fl. amer.* 1. p. 321.

hispidus.

In wet fields and on the banks of ditches: Virginia and Carolina. 4. June—Aug. v. v. Flowers small, pale yellow.

22. R. foliis submersis capillaceis, emersis peltatis. Willd. sp. pl. 2. p. 1332.

aquatilis,

R. heterophyllus. Roth fl. germ. 1. p. 240.

Icon. Engl. bot. 101. Fl. dan. 376.

In ponds and slow-flowing rivulets: Canada to New York. 4. June, July. v. v. Flowers white.

23. R. foliis omnibus dichotomo-capillaceis, caule natante. Willd. sp. pl. 2. p. 1333.

fluviatilis.

Icon. Fl. dan. 376.

In tranquil rivers: Pensylvania to Carolina. 4. June
—Aug. v.v. Flowers white.

### \*\*\* Seminibus aculeatis.

24. R. glabellus, diffusus; foliis simplicibus subrotundis trilobatis, calycibus longitudine corollarum.—Willd. sp. pl. 2. p. 1329.

muricatus.

Icon. Lam. illustr. t. 498. f. 2. Alp. exot. 262.

In old fields: Virginia and Carolina. O. June, July. v. v. Flowers yellow.

25. R. glabellus, simplex; foliis simplicibus subrotundis trilobatis, petalis calyce duplo longioribus.—Vent. hort. cels 73. echinatus.

Near Charlestown, South Carolina. Bosc. +. Flowers yellow, more than twice the size of the preceding one.

## 466. SAGITTARIA. Gen. pl. 1441.

1. S. foliis lanceolatis acutis sagittatis, lobis lanceolatis acutis rectis, scapo simplici, floribus monoicis, bracteis calycibusque lanceolatis acutis.—Willd. sp. pl. 4. p. 408.

sagittifolia. β. minor.

Icon. Fl. dan. 172.

In small ponds and ditches: Pensylvania to Carolina.

major.

gracilis.

- 4. July, Aug. v. v. Leaves not above two inches long; flowers, as in all the following species, white.
- 2. S. foliis ovatis acutiusculis sagittatis, lobis ovatis tenuissime acuminatis rectis, scapo simplici, floribus monoicis, bracteis subrotundis obtusis.—Willd. sp. pl. 4. p. 409.
  - S. sagittifolia. Mich. fl. amer. 2. p. 189.
    β. S. foliis amplis abrupte acutis, scapo subramoso, floribus dioicis.
    - In ponds and ditches: Canada to Caro'ina. 4. June—Aug. v. v. Leaves large and broad.
- obtusa.

  3. S. foliis dilatato-ovatis rotundato-obtusis mucronatis sagittatis, lobis approximatis oblongis oblique-acuminatis rectis, scapo simplici, floribus dioicis, bracteis ovatis acutis.—Willd. sp. pl. 4. p. 409.
  - In ditches and shallow pends: Pensylvania to Virginia.
    4. June—Sept. v. v. Leaves the size of Calla palustris.
- hastata.

  4. S. foliis oblongo-lanceolatis sensim-acutis sagittatis, lobis patentibus lanceolatis longissime acuminatis, scapo simplici, floribus dioicis, bracteis calycibusque subrotundis obtusis.
  - In old ditches: Pensylvania. 4. July, Aug. v.v. Leaves the size of S. sagittifolia; the lobes very spreading.
  - 5. S. foliis linearibus obtusiusculis 3-nervibus sagittatis, lobis patentibus linearibus elongatis sensim tenuissime acuminatis, scapo simplici paucifloro, floribus dioicis, bracteis brevibus suborbiculatis.
    - In bogs and ditches: Pensylvania to Virginia, particularly on the mountains. 4. July, Aug. v.v. Leaves very slender, about three inches long, measured from the beginning of the petiole.
- heterophylla. 6. S. fol'is simplicibus linearibus lanceolatisque utrinque acutis, seu ellipticis acutis basi obtusis sagittatis, lobis divarleatis linearibus, scapo simplici paucifloro, floribus monoicis, femineis subsessilibus, bracteis latoovatis acuminatis.
  - In small ponds and ditches: Pensylvania and New Jersey. 4. June—Aug. v. v. Leaves about two inches and a half long: this species is easily distinguished by the female flowers being almost sessile.

 S. foliis lato-lanceolatis inferne angustatis, scapo subramoso, seminibus planis falcatis rostratis.

falcata.

- S. lancifolia. Mich. fl. amer. 2 p. 189.
- In ponds: Carolina. 4. July, Aug v. s. in Herb.

rigida.

- S. foliis angusto-lanceolatis inferne carinatis rigidis utrinque acutissimis, scapo ramoso, floribus monoicis.
  - In still and deep waters of Oswego river near the great falls, New York. 2 July, Aug. v v. This species grows in a depth of more than seven feet water; the petioles are strong and stiff; the flowers very numerous.

simplex.

- S. foliis lineari-lanceolatis acutis inferne angustatis, scapo simplici multifloro, floribus dioicis, bracteis calycibusque rotundatis obtusis.
  - In small ponds: New Jersey. 4. July, Aug. v.v. Leaves about six inches long and half an inch wide; flowers from twelve to eighteen in a scape.

graminea.

- S. foliis linearibus longissimis 3 nervibus, scapo simplici paucifloro, floribus monoicis, bracteis oblongis obtusis.
  - S. graminea: foliis lanceolato-linearibus, capitulis pistillorum pusillis. *Mich fl. amer 2. p.* 190?
  - In Carolina. Lyon. Canada. Michaux. 4. July, Aug. v. s. in Herb. 1.yon.
- 11. S. toliis subulat s basi vaginantibus dorso convexis, scapo simplici paucifloro, floribus monoicis, bracteis dilatatis acuminatis.

acutifolia.

In small rivulets and ditches, near Philadelphia. 4.

July, Aug. v. v. A small species; leaves sometimes with a dilated point, represen ing a leaf.

natans.

12. S. foliis natantibus elliptico-lanceolatis obtusis 3-nervibus basi attenuatis, infimis subcordatis, scapo simplici paucifloro, pedunculis inferioribus elongatis.— *Mich. fl. amer.* 2. p 190.

In rivulets of Lower Carolina. 4. July, Aug. v. s. in Herb. Lyon. Flowers small; leaves about an inch and a half long.

467. CYAMUS. Salisb. in annals of bot. 2. p. 75.

Nelumbium. Willd. sp. pl. 2. p. ....

Aavicomus.

1. C. foliis peltatis orbiculatis integerrimis, corolla polype tala, antheris superne linearibus. - Salisb. l. c. Nelumbium luteum. Willd. sp. pl. 2. p. 1259. Nymphæa Nelumbo β. Sp. pl. 730.

Icon. Bartr. ic. ined. in mus. Banks.

In ponds and lakes of Carolina and Virginia; also near Philadelphia, in ditches and ponds of Brobston's mea-24. July. v. v. Flowers large, yellow, resembling a double tulip. The seeds are very agreeable to eat, and eagerly sought for by children and Indians. By the latter it is supposed they were introduced to those ponds near Philadelphia, as there is no other instance known to have been found so far north. Walter mentions his Nelumbo to have white flowers: this variety I have never seen.

pentapetalus.

2. C. foliis peltatis orbiculatis integerrimis, calyce pentaphyllo, corolla pentapetala.

Nelumbium pentapetalum. Willd. sp. pl. 2. p. 1259.

Nymphæa pentapetala. Walt. fl. car. 155.

In North and South Carolina. 4. July. v.s. Flowers large, white. A specimen seen in the collection of a gentleman in Carolina ascertains the existence of this formerly doubtful plant; but unfortunately I took no notes at that time, being in expectation of seeing the living plant.

reniformis.

3. C. foliis reniformibus, corolla polypetala. Nelumbium reniforme. Willd. sp. pl. 2. p. 1260. Nymphæa reniformis. Walt. fl. car. 155. In Carolina. Walter. 4. +. This is a doubtful species,

and probably a plant belonging to a different genus.

## 468. POTHOS. Gen. pl. 210.

fætida.

1. P. acaulis; foliis ovatis cordatis, spadice subgloboso.— Mich. fl. amer. 2. p. 186.

Dracontium fætidum. Willd. sp. pl. 2. p. 288. Icon. Bot. mag. 836. Catesb. car. 2. t. 71.

In low grounds, on the side of shady rivulets and springs: Canada to Virginia. 4. Feb.—April. v.v. Leaves large; flowers several, almost sessile on the ground,

of a singular shape, spotted yellow and brown; the whole plant very fœtid, from which it has the name of Skunk-weed or Skunk-cabbage. It has four distinct, truncated, fleshy petals, and four stamina to each germ.

## 469. CALLA. Gen. pl. 1388.

1. C. foliis subrotundo-cordatis acutis, spatha ovata cuspidata .- Willd. sp. pl. 2. p. 290.

palustris.

Icon. Fl. dan. 422.

In sphagnous swamps, on the mountains and near rivulets: Canada to Pensylvania. 4. July, Aug. v. v. Flowers white.

### 470. ARUM. Gen. pl. 1387.

1. A. acaule; foliis hastato-cordatis acutis, lobis obtusis, spatha elongata incurva, spadice superne longius masculifloro. - Willd. sp. pl. 4. p. 484.

virginicum.

Calla virginica. Mich. fl. amer. 2. p. 187.

In overflowed places on the banks of rivers, among Scirpi and Junci. 24. June, July. v. v. Spatha long, involute, green.

2. A. acaule; foliis subhastato-sagittatis, lobis oblongis, sagittifolium. spatha cucullata superne ovali, spadice longo a medio ad apicem masculifloro.

Calla sagittifolia. Mich. fl. amer. 2. p. 187.

Caladium sagittifolium. Willd. sp. pl. 4. p. 489?

On the banks of rivers and old swamps: Pensylvania to Carolina. 4. July, Aug. v. v.

dice cylindrico spatha sessili ovata acuminata horizon-

3. A. acaule; foliis ternatis, foliolis ovatis acuminatis, spaatrorubens.

taliter patenti altiore. - Willd. sp. pl. 4. p. 481. Icon. Pluk. alm. t. 148. f. 6. bona.

In swamps of Virginia and Maryland. 24. May, June. v. v. Spatha dark brown, of a disagreeable smell.

4. A. subcaulescens; foliis ternatis, foliolis ovatis acuminatis, spadice clavato spatha ovata acuminata plana pedunculata dimidio breviore, floribus monoicis.—Willd. sp. pl. 4. p. 480.

triphyllum.

a. A. spatha virescente.

Icon. Pluk. amalth. t. 376. f. 3.

β. A. spatha atropurpurea.

atropurpureum.

Icon. Pluk. alm. t. 77. f. 5. In shady wet woods: Canada to Carolina. 4. June, virens.

July. v. v. Flowers handsomely green and yellow, or green and purple striped. Roots known as a medicine among the natives, particularly in colics: they are generally called *Indian Turnips*.

Dracontium.

5. A. acaule; foliis pedatis, foliolis lanceolato-oblongis integerrimis, spadice subulato spatha oblonga convoluta longiore.—Willd. sp. pl 4. p. 478.

Icon. Pluk. alm. t. 271. f. 2.

In shady woods: Virginia to Florida. 2. June, July.

# XIII. DIDYNAMIA.

### I. GYMNOSPERMIA.

## \* Calyces subquinquefidi.

471. AJUGA. Cor. labium superius minimum bidentatum. Stamina labio superiore longiora.

472. TEUCRIUM. Cor. labium superius nullum, sed fis-

sura ejus loco in qua Stamina jacent.

473. MENTHA. Cor. subæqualis, 4-fida: lacinia latiore emarginata. Stam. erecta, distantia.

474. ISANTHUS. Cal. campanulatus. Cor. 5-partita: tubo recto, angusto: laciniis ovatis æqualibus. Stam. subæqualia. Stigm. linearia, recurva.

475. CUNILA. Cal. cylindricus, 5-dentatus, fauce villosus. Cor. ringens: labio superiore erecto, plano, emarginato. Stam. 2. sterilia.

476. HYSSOPUS. Cor. labium inferius tripartitum, lacinula intermedia crenata. Stam. recta, distantia.

477. NEPETA. Cal. aridus, striatus. Cor. tubo longiusculo: labio inferioris lacinula intermedia crenata; faux margine reflexo. Stam. approximata.

478. LAMIUM. Cor. labium superius integrum, fornicatum: labium inferius bilobum: faux utrinque margine dentata.

479. GALEOPSIS. Cor. labium superius subcrenatum,

fornicatum: labium inferius supra 2-dentatum.
480. STACHYS. Cor. labium superius fornicatum: labium inferius lateralibus reflexum; lacinia intermedia majore emarginata. Stam. deflorata versus la-

tera reflexa.

481. LEONURUS. Cal. 5-gonus, 5-dentatus. Cor. labium superius villosum, planum, integrum: inferius

tripartitum, lacinia media indivisa.

482. GLECHOMA. Cat. 5-fidus. Antherarum singulum par in formam crucis connivens.

- 483. MARRUBIUM. Cal. hypocrateriformis, rigidus, 10-striatus. Cor. labium superius bifidum, lineare, rectum.
- 484. HYPTIS. Cal. 5-dentatus, crescens. Cor. ringens: labium superius bifidum, inferius tripartitum, lacinia media sacculiformi. Stam. tubi ventri inserta, declinata.
- 485. PYCNANTHEMUM. Involucrum multibracteatum, capitulis subjectum. Cal. tubulatus, striatus. Cor. labium superius subintegrum, inferius trifidum. Stam. subæqualia.

### \*\* Calyces bilabiati.

- 486. CLINOPODIUM. *Involucrum* multisetum, verticillo subjectum. *Cor.* labium superius planum, obcordatum, rectum.
- 487. ORIGANUM. Strobilus tetragonus, spicatus, calyces colligens. Cor. labium superius erectum, planum: inferius tripartitum: laciniis æqualibus.
- 488. DRACOCEPHALUM. Cor. faux inflata, labium superius concavum.
- 489. PRÚNELLA. Cor. labium superius dilatatum. Filam. bifurca: altero apice antherifera. Stigm. bifidum.
- 490. SCUTELLARIA. Cal. ore integro, post florescentiam clauso, operculato. Cor. tubus elongatus.
- 491. THYMUS. Cal. campanulatus, faux villis clausa. Cor. labium superius planum, emarginatum.
- 492. CALAMINTHÀ. Cal. defloratus villis clausus. Cor. fauce inflata, labio superiore emarginato, inferiore tripartito: lacinia intermedia integra, subemarginata aut crenulata.
- 493. HEDEOMA. Cal. basi gibbus. Cor. ringens. Stam. 2. sterilia.
- 494. TRICHOSTEMA. Cor. labium superius falcatum. Stam. longissima.

## II. ANGIOSPERMIA.

## \* Calyces quinquefidi.

- 495. LJNNÆA. Cal. superus, duplex: fructus 2-phyllus; floris 5-partitus. Cor. campanulata. Bacca sicca, 3-locularis.
- 496. PHRYMA. Cal. cylindricus, supra longior, trifidus, infra bidentatus. Cor. labium superius emarginatum, inferius majus. Sem. unicum.

497. VERBENA. Cal. 5-fidus. Cor. infundibuliformis. tubo incurvo, limbo inæquali, 5-fido. Sem. 2-4.

498. ZAPANIA. Flor. capitati. Cal. 5-dentatus. Cor. 5-fida. Stam. 4. fertilia. Stigm. peltato-capitatum, obliquum. Fructus tectus utricularis, evanescens, nectens semina 2.

409. CAPRARIA. Cal. 5-partitus. Cor. campanulata, 5-fida, acuta. Caps. 2-valvis, 2-locularis, poly-

sperma.

500. HERPESTIS. Cal. inæqualis, basi 2-bracteatus. Cor. tubulosa, subbilabiata. Stam. inclusa. Caps. 2-valvis, 2-locularis, dissepimento valvis parallelo.

501. LINDERNIA. Cal. 5-partitus, æqualis. Cor. ringens, labio superiore brevissimo, inferiore 3-fido, basi bicarinata. Anther. per paria cohærentes. Stigm. bilamellatum. Caps. 2-locularis, 2-valvis, dissepimento valvis parallelo.

502. SCROPHULARIA. Cal. 5-fidus. Cor. subglobosa,

resupinata. Caps. 2-locularis.
503. BIGNONIA. Cal. 5-fidus, cyathiformis. Cor. fauce campanulata, 5-fida, subtus ventricosa. Siliqua 2locularis. Sem. membranaceo-alata.

504. RUELLIA. Cal. 5-partitus. Cor. subcampanulata, limbo 5-fido. Stam. conjugata. Cups. utrinque attenuata, dentibus elastice dehiscens. Sem. pauca.

505. BUCHNERA. Cal. 5-dentatus. Cor. limbus 5-fidus,

æqualis: lobis cordatis. Caps. 2-locularis.

506. ANTIRRHINUM. Cal. 5-phyllus. Cor. calcarata, ringens: rictu clauso palato prominente. Caps. 2locularis, 2-valvis.

507. GERARDIA. Cal. 5-fidus. Cor. 2-labiata: labio inferiore 3-partito: lobis emarginatis: medio bipartito. Caps. 2-locularis, dehiscens.

508. PEDICULARIS. Cal. 5-fidus. Cor. ringens. Caps. 2-locularis, mucronata, obliqua. Sem. tunicata.

509. MIMULUS. Cal. prismaticus, 5-dentatus. Cor. ringens: labio superiore lateribus replicato. Stigm. crassum. Caps. 2-locularis, polysperma.

510. CHELONE. Cal. 5-partitus, 3-bracteatus. Cor. ringens, ventricosa. Filam. quintum sterile, cæteris brevius. Caps. 2-locularis, 2-valvis. Sem. plurima,

margine membranacea.

511. PENTSTEMON. Cal. 5-phyllus. Cor. 2-labiata, ventricosa. Filam. quintum sterile, cæteris longius, superne barbatum. Caps. compressa, 2-locularis, 2-valvis. Sem. numerosa, subglobosa.

512. MARTYNIA. Cal. 5-fidus. Cor. ringens. Caps. lignosa, corticata, rostro hamato, 4-locularis, 2-valvis.

## \*\* Calyces quadrifidi.

513. SCHWALBEA. Cal. ventricoso-tubulosus, 4-fidus: lacinia superiore minima, infima maxima, emarginata. Cor. ringens. Caps. 2-locularis, 2-valvis: dissepimento duplicato. Sem. paleacea.

514. RHINANTHUS. Cal. ventricosus, 4-fidus. Cor. ringens: labio superiore compresso. Caps. 2-locu-

laris, compressa, obtusa.

515. BARTSIA. Cal. 2-lobus, emarginatus, coloratus.

Cor. minus ipso calyce: labio superiore longiore.

Caps. 2-locularis. Sem. angulata.

516. EUPHRASIA. Cal. cylindricus, 4-fidus. Cor. bilabiata: labium superius 2-fidum, inferius 3-lobum: laciniis bifidis. Anth. inferiores lobis spinosis.

517. MELAMPYRUM. Cal. 4-fidus. Cor. labium superius compressum, margine replicato. Caps. 2-locularis, obliqua, hinc dehiscens. Sem. 2. gibba.

## \*\*\* Calyces bifidi.

518. OBOLARIA. Cor. campanulata, 4-fida. Stam. ex divisuris corollæ. Caps. 1-locularis, 2-valvis, polysperma.

519. OROBANCHE. Cor. ringens. Caps. 1-locularis, 2-valvis, polysperma. Glandula sub basi germinis.

## I. GYMNOSPERMIA.

# 471. AJUGA. Gen. pl. 959.

Chamæpithys. A. foliis trifidis, floribus axillaribus solitariis folio brevioribus, caule diffuso. Willd. sp. pl. 3. p. 10.
 Teucrium Chamæpithys. Sp. pl. 787.

Icon. Fl. dan. 733. Rivin. t. 24.

In sandy fields of Virginia. Gronov. O. June, July. v. s. in Herb. Gronov. Flowers pale yellow.

### 472. TEUCRIUM. Gen. pl. 960.

1. T. cano-hirsutissimum; foliis ovato-lanceolatis serratis, omnibus petiolatis, caule erecto, spicis verticillatis confertis, bracteis calyce duplo longioribus.—Willd. sp. pl. 3. p. 22.

In low grounds, on the borders of ponds and lakes: Canada to New York. 4. July, Aug. v.v. Flowers

purple.

2. T. pubescens; foliis ovato-oblongis serratis, superioribus subsessilibus, caule erecto, spicis verticillatis confertis, bracteis longitudine calycis.—Willd. sp. pl. 3. p. 22.

Icon. Schkuhr handb. 160.

In low grounds and bogs: New York to Carolina. 4. June—Aug. v. v. Resembles the foregoing species very much.

### 473. MENTHA. Gen. pl. 967.

1. M. floribus verticillatis, foliis lanceolatis serratis petiolatis pilosis, stammibus corollam æquantibus. Willd. sp. pl. 3. p. 82.

In Canada. Kalm. 21. +.

2. M assurgens, pubescens; foliis petiolatis ovali-lanceolatis utrinque acutissimis, floribus verticillatis, staminibus exertis.—Mich. fl. amer. 2. p. 2.

On the banks of rivers and near springs: Canada to Pensylvania. 4. July, Aug. v. v. Flowers pale purple.

3. M. erecta, glabriuscula; foliis lanceolato-ovatis subsessilibus, spica gracili, verticillis minimis interrupta, staminibus non exertis.—Mich. ft. amer. 2. p. 2.

M. viridis. Walt. fl. car. 161.

In wet places, near springs: Pensylvania to Georgia. U June—Aug. v. v. Flowers white.

# 474. ISANTHUS. Mich. fl. amer. 2. p. 3.

 I. viscido-pubescens; foliis ovali-lanceolatis utrinque acutis 3-nervibus, pedunculis 1-2-floris. Mich. fl. amer. 2. p 4.

Icon. Mich. fl amer 2, t, 30.

On dry hills, in lime-stone soil: Virginia and Kentucky.
O. July, Aug. v. v. Flowers pale blue.

cunadense.

virginicum.

canadensis.

borealis.

tenuis.

cæruleus.

## 475. CUNILA. Gen. pl. 46.

mariana.

1. C. foliis ovatis serratis sessilibus, corymbis terminalibus dichotomis.—Willd. sp. pl. 1. p. 122.

Icon. Pluk. mant. t. 344. f. 1.

On dry shady hills: New York to Carolina. 4. June, July. v. v. Flowers red. The whole herb has an aromatic scent, and is used as tea in severe colds and other complaints, under the name of Dittany.

## 476. HYSSOPUS. Gen. pl. 963.

nepetoides.

1. H, spicis verticillatis cylindricis, stylis corolla brevioribus, foliis subcordatis ovatis acuminatis acute dentatis.— Willd. sp. pl. 3. p. 48.

Icon. Jacq. hort. 1. t. 69. Pluk. alm. t. 150. f. 3.

In fertile shady woods, along hedges: Pensylvania to Virginia.  $\mathcal{U}$ . July, Aug. v. v. From three to five feet high; flowers in long close spikes, yellowish.

scrophularifolius.  H. spicis verticillatis cylindricis, stylis corolla longioribus, foliis cordatis ovatis acuminatis obtuse dentatis.— Willd. sp. pl. 3. p. 48.

Agastache. Gronov. fl. virg. 88. Icon. Herm. parad. t. 106.

In wet copses and on the banks of rivers: Pensylvania to Virginia; rare. 24. July, Aug. v. v. Seldom above two feet high; flowers purple.

## 477. NEPETA. Gen. pl. 964.

Cataria.

N. floribus spicatis, vertieillis subpedicellatis, foliis petiolatis cordatis dentato-serratis. Willd. sp. pl. 3. p. 49.

Icon. Fl. dan. 580. Schkuhr handb. 157.

On road sides and in cultivated grounds: frequent. 4. July, Aug. v. v. Flowers white. Common Catnep, so well known as a domestic medicine, has probably been introduced from Europe.

## 478. LAMIUM. Gen. pl. 971.

amplexicaule. 1. L. foliis floralibus sessilibus amplexicaulibus obtusis.

Willd. sp. pl. 3. p. 90.

Pollichia amplexicaulis. Roth germ. 1. p. 254.

Icon. Fl. dan. 752. Schkuhr handb. 159.

In cultivated grounds, common; probably introduced.

O. May—Aug. v. v. Flowers purple.

L. caule hispido, foliis longe petiolatis lato-cordatis pubescentibus, axillis unifloris.—Mich. fl. amer. 2. p. 4.
 In shady woods of Tennassee. Michaux. +. Flowers large, white.

hispidulum.

## 479. GALEOPSIS. Gen. pl. 972.

1. G. internodiis caulinis superne incrassatis, verticillis summis subcontiguis, calycibus pungentibus, corollis calyce parum longioribus, caule hirto. Willd. sp. pl. 3. p. 92.

Tetrahit.

Icon. Engl. bot. 207.

On road sides, in the western parts of Pensylvania. O. July, Aug. v. v. Flowers white, with purple spots.

### 480. STACHYS. Gen. pl. 974.

1. S. glabriuscula, gracilis, erecta; foliis sessilibus linearilanceolatis rariter subdentatis, verticillis subquadrifloris.—Mich. fl. amer. 2. p. 4. hyssopifolia.

S. palustris. Walt. fl. car. 162.

In Carolina. Michaux. +.

2. S. caulibus erectis, retrorsum hispidissimis, foliis subpetiolatis lanceolatis acute serratis glaberrimis, verticillis subsexfloris, calycibus divaricato-spinescentibus.—

Mich. fl. amer. 2. p. 5.

aspera.

S. tenuifolia. Willd. sp. pl. 3. p. 100.

S. arvensis. Walt. fl. car. 162.

In low fields and on the banks of rivers: New York to Virginia. 4. June—Aug. v. v. Resembles S. palustris; flowers purple.

hispida?

3. S. caule foliisque hispido-pilosis; foliis petiolatis ovatooblongis obtuse-serratis, verticillis subsexfloris, caly-

cibus glabriusculis.

Galeopsis floris galea rubente, &c. Gron. fl. virg. n. 271. In old fields and low pastures: Virginia to Carolina. 4. July. v. v. Flowers purple. Gronovius's synonym has been placed under S. annua, from which it is widely different, as his specimen in the Banksian Museum sufficiently demonstrates.

Fæniculum.

 S. erecta, pubescens; foliis cordato-ovatis dentatis, supra glabris subtus albicantibus tomentosis, verticillis subsexfloris. On the banks of the Missouri. ①. July. v. s. Flowers blue. The whole of this plant has a scent extremely like that of fennel.

## 481. LEONURUS. Gen. pl. 977.

Cardiaca.

 L. foliis cuneiformi-ovatis trilobis dentatis, corollis calyce pungente majoribus, lacinia media labii inferioris acuta. Willd. sp. pl. 3. p. 114.

Icon. Fl. dan. 727. Engl. bot. 286.

In old fields and hedges: Pensylvania to Virginia; probably introduced from Europe. 4. July, Aug. v.v. Flowers white, mixed with red.

## 482. GLECHOMA. Gen. pl. 970.

hederacea.

G. foliis reniformibus crenatis. Willd. sp. pl. 3. p. 85.
 Icon. Fl. dan. 789. Curt. lond. 2. t. 44.
 In orchards and on grassy hills: Pensylvania to Virginia.
 May, June. v. v. Flowers handsome, blue.

## 483. MARRUBIUM. Gen. pl. 976.

vulgare.

M. foliis subrotundo-ovatis dentatis rugoso-venosis, calycibus dentibus setaceis uncinatis. Willd. sp. pl. 3.
p. 111.

Icon. Fl. dan. 1036. Engl. bot. 410.

On road sides; frequent. 4. July, Aug. v. v. Flowers small, white.

## 484. HYPTIS. Gen. pl. 969.

capitata.

 H. capitulis oppositis, pedunculo internodiis longitudine, bracteis lanceolatis calyce frugifero brevioribus, foliis oblongis utrinque attenuatis inæqualiter serratis.— Willd. sp. pl. 3. p. 84. Poiteau in annal. du mus. 7. p. 464.

Clinopodium capitatum. Swartz. prodr. 88.

Icon. Jacq. ic. rar. t. 114. Annal. du mus. 7. t. 27. f. 1. In Lower Carolina. Michaux. 4. July, Aug. v. v. Flowers white.

radiata.

2. H. capitulis oppositis, pedunculo internodiis longitudine, bracteis lanceolatis calyce frugifero longioribus, foliis oblongis serratis.—Willd. sp. pl. 3. p. 84. Poiteau in annal. du mus. 7. p. 466.

Clinopodium rugosum. Sp. pl. 822. Icon. Dill. elth. t. 75. f. 86. Annal. du mus. 7. t. 27. In Lower Carolina. 24. +.

# 485. PYCNANTHEMUM. Mich. fl. amer. 2. p. 7. Brachystemum. Mich. fl. amer. 2. p. 5.

### \* Staminibus exertis.

1. P. foliis oblongo-ovatis acutis subserratis cano-tomentosis, capitulis compositis, lateralibus pedunculatis, bracteis setaceis. - Mich. fl. amer. 2. p. 7.

Clinopodium incanum. Willd. sp. pl. 3. p. 132.

Icon. Dill. elth. t. 74. f. 85. Pluk. mant. t. 344. f. 7. In low fields and copses: New York to Carolina. 4. July-Oct. v. v. About three feet high; flowers white, tinged with red.

2. P. foliis lanceolato-ovatis subserratis brevissime petiolatis subcandicantibus, capitulis sessilibus, bracteis aristatis. -Mich. fl. amer. 2. p. 8.

Nepeta virginica. Willd. sp. pl. 3. p. 56.

Icon. Mich. fl. amer. 2. t. 33. Pluk. alm. t. 85. f. 2. In dry woods, in lime-stone soil: Maryland to Carolina. 4. July, Aug. v. v. Flowers white, very small.

3. P. foliis ovali-lanceolatis serratis subsessilibus, capitulo sessili, calycibus approximatis erectis breviter dentatis. Mich. fl. amer. 2. p. 8.

On high mountains of Carolina. Michaux. 4. +. Stem and leaves tinged with purple.

4. P. hirsutum; foliis abrupte petiolatis subcordato-ovali- Monardella. bus serratis, bracteis magnis coloratis, bracteolis ciliatis, calycibus summitate barbatis.—Mich. fl. amer. 2.

Origanum incanum. Walt. fl. car. 165.

Icon. Mich. fl. amer. 2. t. 34.

On the mountains of Virginia and Carolina. -Aug. v. v. Flowers small, pale red.

5. P. caule stricto ramosissimo asperiusculo, foliis linearibus 3-nervibus integerrimis, capitulis terminalibus fasciculato-corymbosis.

Brachystemum virginicum. Mich. fl. amer. 2. p. 6. Brachystemum linifolium, Willd. enum. 623. Thymus virginicus. Willd. sp. pl. 3. p. 145.

incanum.

aristatum.

montanum.

linifolium.

Satureja virginiana. Sp. pl. 2. p. 793.

Origanum flexuosum. Walt. fl. car. 165. Icon. Herm. parad. t. 218 Pluk. alm. t. 54. f. 2.

In dry swamps and mountain meadows: New England to Carolina. 4. July, Aug. v. v. Flowers very small, entirely white. This and the following species approach so near to the genus Westringia, that they almost ought to be added to that genus.

### \*\* Staminibus inclusis.

lanceolatum.

 P. caule stricto ramosissimo asperiusculo, foliis linearilanceolatis venosis integerrimis, capitulis terminalibus fasciculato-corymbosis.

Brachystemum lanceolatum. Willd. enum. 623.

In dry swamps and on the banks of rivers: Pensylvania to Virginia. 4. July, Aug. v.v. Resembles the foregoing species very much; flowers white; the lower lip of the corolla has purple dots.

muticum.

7: P. foliis ovato-lanceolatis subdentatis glabriusculis, capitulis terminalibus, bracteis lanceolatis acutiusculis.—

Pers. syn. 2. p. 128.

Prochystomy proting Mich. 4 areas 2. p. 6.

Brachystemum muticum. Mich. fl. amer. 2. p. 6.

Icon. Mich. fl. amer. 2. t. 32.

In Upper Carolina. Michaux. 4. +.

verticillatum.

P. foliis ovato-lanceolatis integerrimis, verticillis sessilibus compactis, bracteis acuminatis.—Pers. syn. 2.
 p. 128.

Brachystemum verticillatum. Mich. fl. amer. 2. p. 6.

Origanum clinopodioides. Walt. fl. car. 165.

Icon. Mich. fl. amer. 2. t. 31.

In the mountains: Pensylvania to Carolina. 4. July, Aug. v. v.

# 486. CLINOPODIUM. Gen. pl. 980.

vulgare.

 C. capitulis verticillatis, bracteis setaceis hispidis, foliis superne pilosis remote dentatis, caule subsimplici. Willd. sp. pl. 3. p. 131.

Icon. Fl. dan. 930. Engl. bot. 1401.

In dry stony fields and woods: Canada to Virginia. 4.

July, Aug. Flowers pale purple or rose-coloured.

## 487. ORIGANUM. Gen. pl. 981.

1. O. spicis subrotundis paniculatis conglomeratis, bracteis calyce longioribus ovatis. Willd. sp. pl. 3. p. 135. Icon. Fl. dan. 638.

vulgare.

In dry stony fields and woods: Pensylvania to Virginia. 4. July, Aug. v. v. Flowers pale red.

### 488. DRACOCEPHALUM. Gen. pl. 984.

1. D. spicis brevibus tetragonis, bracteis ovatis acutis, calycis dentibus inæqualibus, foliis arcte sessilibus ovalioblongis superne denticulatis. Vent. hort. cels t. 44.
cum icone.

Prasium incarnatum. Walt. fl. car. 165,

In Lower Carolina. 4. Aug. Sept. v. v. Flowers blueish-red, with white stripes, very ornamental.

2. D. spicis elongatis confertifloris, bracteis subulatis, ca- virginianum. lycis dentibus brevibus subæqualibus, foliis linearilanceolatis serratis.—Willd. sp. pl. 3. p. 149.

Icon. Bot. mag. 467. Rob. ic. 207.

In mountain meadows: Virginia and Carolina. 4.

July-Sept. v.v. Flowers reddish-purple. There is a taller variety with dark purple flowers.

3. D. spicis elongatis remotifloris, bracteis subulatis, ca-denticulatum. lycis dentibus subæqualibus, foliis obovato-lanceolatis superne denticulatis.—Willd. sp. pl. 3. p. 150.

Prasium purpureum. Walt. fl. car. 166.

Icon. Bot. mag. 214.

In the mountains of Virginia and Carolina. 24. July—Sept. v. v. Resembles the former very much; it is always smaller in size, and weakly in stem.

## 489. PRUNELLA. Gen. pl. 990.

1. P. foliis petiolatis oblongo-ovatis basi dentatis, calycis labiis inæqualibus, superiore truncato aristato, caule adscendente.—Willd. sp. pl. 3. p. 176.

Icon. Fl. dan. 910. Engl. bot. 961.

In fields and meadows: New England to Carolina. 4.
July, Aug. v. v. Flowers violet purple.

2. P. fóliis petiolatis ovato-lanceolatis basi dentatis, calycis pensylvanica. labiis æqualibus, superiore truncato triaristato, caule adscendente. Willd. hort. berel. p. 9. t. 9.

P. laciniata. Walt. fl. car. 163.

P. sylvestris autumnalis, &c. Gron. fl. virg. 91.

In woods and meadows: Pensylvania to Carolina. J. July, Aug. v. v. Resembles the foregoing species; the spikes are longer, and the flowers pale blue.

# 490. SCUTELLARIA. Gen. pl. 989.

later if lora,

- S. ramosissima, glabriuscula; foliis longissime petiolatis ovatis dentatis, caulinis subcordatis, racemis lateralibus foliosis.—Willd. sp. pl. 3. p. 172.
  - On the side of ditches and ponds: Canada to Carolina. 4. July—Sept. v. v. Flowers blue, small.

nervosa.

- S. simpliciuscula, glabra; foliis sessilibus ovatis dentatis nervosis, racemo terminali laxo folioso.
  - On the banks of rivulets: Virginia. 4. July, Aug. v. v. Flowers, as the most of this genus, blue, larger than the foregoing species.

galericulata.

3. S. simpliciuscula, glabra; foliis subsessilibus ovato-lanceolatis basi subcordatis crenatis, floribus axillaribus solitariis.—Willd. sp. pl. 3. p. 173.

Icon. Fl. dan. 637. Engl. bot. 523.

In Canada and in the salt-marshes of Onondago, New York. 4. July, Aug. v. v. Flowers large, pale blue.

angustifolia.

4. S. simplex, tenuissime pubescens; foliis linearibus, floribus axillaribus oppositis, genitalibus subexertis.

On the river Kooskoosky. M. Lewis. U. June. v. s.

On the river Kooskoosky. M. Lewis. 4. June. v. in Herb. Lewis.

parvula.

5. S. simplex, pusilla, dense pubescens; foliis sessilibus ovatis integerrimis, omnibus conformibus, floribus axillaribus solitariis.—*Mich. fl. amer.* 2. p. 11.

In Canada and the Illinois country. *Michaux*. On banks of rivers in Virginia. *Ph.* J. June, July. v. v. Not above two inches high; flowers small, pale blue.

caroliniana.

6. S. ramosa, glaberrima; foliis petiolatis lineari-lanceolatis acutis integerrimis, racemis laxis foliosis, calycibus obtusis.—*Lam. encycl.* 7. p. 706.

Icon. Lam. illustr. t. 515. f. 3. In Carolina. Fraser.  $\mathcal{U}$ . +.

integrifolia.

7. S. simpliciuscula, dense pubescens; foliis subsessilibus oblongis linearibusve obtusis integerrimis basi attenuatis, racemis laxiusculis foliosis.—Willd. sp. pl. 2. p. 173.

Icon. Pluk. alm. 441. f. 6.

3. S. foliis omnibus linearibus.—Willd. sp. pl. 3. p. 174.

hyssopifolia.

On dry hills, in rich soil: New York to Carolina. 4.

July—Sept. v. v. Flowers large, handsome blue. This
species is very variable, in size and figure of leaves,
simple and branched stems, &c.

serrata.

 S. ramosa, elata, pubescens; foliis ovatis acuminatis serratis breviter petiolatis, racemis terminalibus laxiusculis plerumque paniculatis, bracteis lanceolatis brevibus.— Bot. rep. 494.

S. integrifolia. Auctorum.

In fields and meadows: Virginia and Carolina. 4. July
—Sept. v. v. The tallest species; flowers large and
handsome.

pilosa.

 S. simpliciuscula, pubescens; foliis remotis rhomboideoovatis obtusis rotundato-crenatis basi attenuatis, petiolis brevibus, racemis terminalibus laxis plerumque ramosis, bracteis lanceolatis integris.—Mich. fl. amer. 2. p. 11.

S. ovalifolia. Pers. syn. 2. p. 136?

S. caroliniana. Walt. fl. car. 163. Icon. Pluk. alm. t. 313. f. 4.

In shady woods: Virginia and Carolina. 4. July, Aug. v. v. Resembles the foregoing one; it is a smaller plant, with only a few leaves.

## 491. THYMUS. Gen. pl. 982.

1. T. floribus capitatis, caulibus repentibus, foliis planis Serpyllum. obtusis basi ciliatis. Willd. sp. pl. 3. p. 138.

Icon Engl. bot. 1514. Schkuhr handb. 144.

Common Thyme occurs frequently in an apparently wild state, particularly on the commons near Philadelphia. 4. 4. July, Aug. v. v. Flowers purple.

## 492. CALAMINTHA. Tourn. inst. 193.

 C. pubescens, ramosissima; foliis ovatis obtusis subserratis, verticillis pedunculatis dichotomo-corymbosis folio longioribus, villis calycinis prominentibus.

Melissa Nepeta. Willd. sp. pl. 3. p. 147. Thymus Nepeta. Smith fl. brit. 2. p. 642. Icon. Engl. bot. 1414. Curt. lond, 6. t. 40. Nepeta.

In lime-stone soil, on dry barren hills: Virginia. U.
June, July. Flowers white, tiuged with red.

grandistora.

2. C erecto-cespitosa; foliis rhomboideo-ovalibus superne obsolete dentatis glabriusculis, verticillis subpedunculatis subdecemfloris folio brevioribus, villis calycinis inclusis.

Thymus grandiflorus. Bot. mag 997. Thymus carolinianus. Mich. fl. amer 2. p. 9. Thymbra caroliniana. Walt. fl. car. 162.

On the banks of the river Savannah, in Georgia and Carolina. 4. h. July, Aug. v. v. Flowers large, pale purple.

## 493. HEDEOMA. Pers. syn. 2. p. 131.

glabra.

1. H. erecta, glabra; foliis inferioribus oblongis, superioribus lanceolatis remote serratis, pedunculis terminalibus ternis.—Pers. syn. 2. p. 131.

Cunila glabella. Mich. fl. amer. 1. p. 13.

On rocks on the river Tennassee, near Nashville.

4. +.

pulegioides.

2. H. pubescens; foliis oblongis serratis, pedunculis axillaribus verticillatis, calycis labio inferiore biseto, setis ciliatis.—Pers. syn. 2. p. 131.

Cunila pulegioides. Willd. sp. pl. 1. p. 122.

In fields and on dry hills: Canada to Carolina. . . June, July. v. v. A small plant; flowers small, pale blue.

hispida.

3. H. ramosa, undique hispido-pilosa; foliis linearibus nervosis, margine revoluto integerrimis, verticillis subquadrifloris, calycibus hispidissimis laciniis subulatis.

On the banks of the Missouri. 

O. June, July. v. s.

Not above two inches high; flowers very small.

## 494. TRICHOSTEMA. Gen. pl. 988.

dichotoma.

1. T. foliis rhomboideo-lanceolatis, ramulis floriferis bifurcatis, staminibus longissimis.—Willd. sp. pl. 3. p. 170.

linearis.

β. T. foliis linearibus. Walt. fl. car. 164.
In fields and on sunny hills: Pensylvania to Carolina.
⊙. June—Aug. v. v. Flowers large, fine blue; the whole plant has an agreeable resinous scent.

T. foliis ovato-lanceolatis, ramulis floriferis oppositis paniculatis, staminibus brevibus inclusis.—Willd. sp. pl. 3. p. 170.

brachiata.

Icon. Dill. elth. t. 285. f. 369.

In Virginia. Dillen. O. v. s. in Herb. Banks. Flowers blue.

## II. ANGIOSPERMIA.

495. LINNÆA. Gen. pl. 1037.

L. caule prostrato, ramulis floriferis erectis bifloris, foliis subrotundis antice crenatis. — Willd. sp. pl. 3. p. 340.
 Icon. Fl. dan. 3. Engl. bot. 433. Fl. lapp. t. 12. f. 4.
 In old fir-woods of Canada and New England, and on the mountains of New York and Pensylvania. Plentifully in the woods near Wiscasset, Province of Main, and near the White Lake, on the mountains of New Jersey. Y. 12. May, June. v. v. Flowers white, tinged with red. This interesting and handsome little plant will for ever be the admiration of the botanist, should it even be only for the sake of its name.

borealis.

## 496. PHRYMA. Gen. pl. 994.

1. P. foliis ovatis grosse serratis petiolatis, spicis terminali- Leptostachia. bus gracilibus, floribus oppositis.—Willd. sp. pl. 3. p. 170.

Icon. Pluk. amalth. t. 380. f. 5. Lam. illustr. t. 516. In shady, rocky woods: Canada to Carolina. 4. June—Aug. v.v. Flowers small, white with purple.—Walter in his Flora Caroliniana has another species which he calls P. caroliniensis, foliis sessilibus obovato-oblongis serratis scabris, spica terminali. Of this plant I was not able to find any information in his Herbarium, and strongly suspect he means Salvia urticifolia by it.

## 497. VERBENA. Gen. pl. 43.

#### \* Foliis laciniatis.

1. V. assurgens; spicis solitariis pedunculatis imbricatis, corollarum laciniis emarginatis, foliis ovalibus incisoserratis petiolatis.—Willd. sp. pl. 1. p. 119.

Aubletia.

V. longiflora. Lam. illustr. 1. p. 57.

Buchnera canadensis. Linn. mant. 88.

Glandularia caroliniensis. Gmel. syst. nat. 2. p. 920.

Anonymos caroliniensis. Walt. fl. car. 164.

Icon. Jacq. hort. 2. t. 176. Roxier journ. d'hist. nat. 1. t. 2.

In Carolina and Georgia. J. June, July. v.v. Flowers large, of a beautiful purple.

bracteosa.

2. V. pumila, decumbens, hirsutissima; foliis laciniatis, spica floribus subimbricata, bracteis linearibus longissimis et undique patentibus squarrosa. *Mich. fl. amer.* 2. p. 13.

Zapania bracteosa. Lam. encycl. 8. p. 843.

In Illinois and Kentucky. 4. July. v. s. in Herb. Lyon. Flowers light purple.

spuria.

3. V. caule decumbente ramosissimo divaricato, foliis multifido-laciniatis, spicis filiformibus, bracteis calyces superantibus.— Willd. sp. pl. 1. p. 119.

On slate-hills and lime-stone rocks: Illinois, Virginia and Kentucky. S. July, Aug. v. Flowers very

small, blue.

hastata.

4. V. erecta, elatior; foliis lanceolatis acuminatis incisoserratis nonnullis inciso-hastatis, spicis linearibus paniculatis subimbricatis.—Willd. sp. pl. 1. p. 118.

Icon. Herm. parad. 242.

pinnatifida.

β. V. foliis inciso-pinnatifidis grosse serratis. Lam. illustr. 1. p. 57.

On road sides, in wet soil, and on the banks of rivers: Canada to Carolina. 24. July, Aug. v. v. From two to five feet high; flowers purple, sometimes white.

## \*\* Foliis integris.

paniculata.

 V. erecta, scabriuscula; foliis lanceolatis grosse serratis indivisis, spicis filiformibus imbricatis corymboso-paniculatis.—Lam. encycl. 8. p. 548.

On the natural meadows of the high mountains of Virginia and Carolina. 4. July, Aug. v. v. From four to six feet high; flowers very numerous, purple.

urtici folia.

6. V. erecta, subpubescens; foliis ovatis acutis serratis petiolatis, spicis filiformibus distinctifloris axillaribus terminalibusque.—Willd. sp. pl. 1. p. 119.

Icon. Riv. monop. 57. Rob. ic. 26.

On road sides and cultivated grounds: New England to

2. June—Sept. v. v. Flowers very small, white.

7. V. erecta, ramosissima; foliis ovato-lanceolatis serratis subpubescentibus, spicis longissimis laxis paniculatis valde diffusis. - Lam. encycl. 8. p. 550.

diffusa.

In North America. Lamarck. 4. h. +. Flowers very small, somewhat purple. This species has a very near resemblance to the foregoing.

rugosa.

8. V. humilis, erecta; foliis lineari-lanceolatis basi attenuatis rariter serratis lineato-venosis, spicis filiformibus solitariis terminalibus axillaribusve. - Willd, enum. 633.

V. angustifolia. Mich. fl. amer. 2. p. 14.

In dry soil, on road sides, particularly in lime-stone soil: Pensylvania to Tennassee. 4. June-Aug. v. v. Not above a foot high; flowers fine blue.

9. V. erecta, scabra; foliis oblongo-obovalibus obtusis in- caroliniana. æqualiter serratis basi attenuatis subsessilibus, spicis longissimis filiformibus distinctifloris. — Willd. sp. pl. 1. p 119.

Icon. Dill. elth. t. 301. f. 388.

In dry sandy fields: Carolina to Georgia. 4. June, July. v. s. Flowers pale red.

stricta.

10. V. hirsuta, albicans; caulibus rigide erectis, foliis sessilibus obovalibus serratis subtomentoso-hirsutissimis, spicis strictis imbricatis subfasciculatis. - Willd. enum. 633. Vent. hort. cels p. 53. cum icone.

V. rigens. Mich. fl. amer. 2. p. 14.

In Carolina and the Illinois country. 4. July, Aug. v. s. in Herb. Lambert.

## 498. ZAPANIA. Lam. illustr. 1. p. 58.

1. Z. foliis ovato-cuneiformibus superne serratis, spicis capitato-conicis solitariis elongato-pedunculatis, caule herbaceo repente. - Lam. illustr. 1. p. 59.

nodiflora.

Verbena nodiflora. Willd. sp. pl. 1. p. 117.

Lippia nodiflora. Mich. fl. amer. 2. p. 15. Blairia nodiflora. Gært. de fruct. et sem. 1. p. 266. t. 56.

Icon. Lam. illustr. 1. t. 17. f. 3. Rob. ic. 30.

On the coast of Virginia and Carolina, and on the banks of the Ohio. 4. July, Aug. v. v. Flowers white, small.

2. Z. foliis lineari-lanceolatis argute serratis, spicis capitato-

lanceolata.

conicis solitariis elongato-pedunculatis, caule herbaces repente. — Pers. syn. 2. p. 140.

Lippia lanceolata. Mich. fl. amer. 2. p. 15.

In Carolina and Georgia, on the banks of rivers. 4. July, Aug. v. v. Flowers white.

## 499. CAPRARIA. Gen. pl. 1030.

multifida.

1. C. erecta, viscido-pubescens; foliis superioribus ternoverticillatis multifidis, pedicellis solitariis.—*Mich. fl. amer.* 2. p. 22. t. 36.

On the banks of rivers, in the western parts of the settlements, particularly on the Missouri and Mississippi.

O. July, Aug. v. s. Flowers small, greenish-

white.

## 500. HERPESTIS. Gært. carp. 3. p. 187. t. 214.

Monniera. Mich. fl. amer. 2. p. 22.

rotundifolia.

 H. minutim pubescens; foliis subovali-orbiculatis multinervibus, pedunculis passim oppositis folia subæquantibus.

Monniera rotundifolia. Mich. fl. amer, 2. p. 22.

On overflowed banks of rivers, in the Illinois and other western parts. 4. July, Aug. v. s. Flowers pale blue, small.

amplexicaulis.  H. caulibus lanatis, foliis breviter cordato-ovalibus amplexicaulibus integris obtusis, pedunculis folio brevioribus.

Monniera amplexicaulis. Mich. fl. amer. 2. p. 22.

In ponds and ditches: Carolina and Georgia. 4. June—Aug. v. v. Flowers blue, larger than the other species.

cuneifolia.

3. H. glaberrima; foliis cuneato-obovalibus superne obsolete subcrenatis, pedunculis folia subæquantibus.

Monniera cuneifolia. Mich. fl. amer. 2. p. 22.

On the overflowed banks of rivers, near the sea-shore: Pensylvania to Carolina. 4. Aug. v. v. Leaves thick; flowers very small, pale blue.

micrantha.

4. H. glabra, succulenta; foliis arcte sessilibus ovalibus obtusis integerrimis striato-nervosis, pedunculis folio brevioribus, calyce 5-phyllo, stylo bifido.

Gratiola repens. Willd. sp. pl. 1. p. 103?

Icon. Swartz. ic. t. 33.

On the banks of rivers, to the edge of low water mark: Pensylvania to Virginia. O. July, Aug. v. v. Flowers very small, white. It approaches near to Lindernia.

### 501. LINDERNIA. Gen. pl. 1031.

1. L. glaberrima; foliis oblongo-ovatis obsolete dentatis sessilibus, pedunculis axillaribus unifloris, corollis calyce duplo longioribus, capsulis calyce brevioribus.— Willd. sp. pl. 3. p. 325?

pyxidaria.

Gratiola inæqualis. Walt. fl. car. 61.

Gratiola anagalloidea. Mich. fl. amer. 1. p. 6.

Gratiola floribus pedunculatis, foliis ovatis crenatis. Gron. fl. virg. 3.

B. L. foliis repando-dentatis, pedunculis brevibus.

On the banks of ponds and rivers, in gravelly soil: New York to Virginia. O. July, Aug. v. v. Flowers blue. The European plant, figured by Schkuhr and Krocker, seems to be a very different species from the present one, as the corolla is shorter than the calyx.

major.

### 502. SCROPHULARIA. Gen. pl. 1014.

1. S. foliis cordatis serratis acutis basi rotundatis, petiolis marylanaica, inferne ciliatis, paniculæ fasciculis laxe paucifloris.-Willd. sp. pl. 3. p. 269.

S. nodosa \( \beta \). americana. Mich. fl. amer. 2. \( \beta \). 21.

In low grounds: Pensylvania to Carolina. 21. June-Aug. v. v. Flowers greenish-brown. The plant often more than four feet high.

lanceolata. 2. S. foliis lanceolatis inæqualiter serratis acuminatis basi acutis, petiolis nudis, paniculæ fasciculis corymbosis. In wet meadows and woods: Pensylvania. 4. Aug. Sept. v. v. Flowers greenish-yellow.

# 503. BIGNONIA. Gen. pl. 1018.

1. B. foliis conjugatis cirrhosis, inferioribus ternatis, foliolis ovato-cordatis acuminatis, racemis axillaribus, caule muricato. Willd. sp. pl. 3. p. 296.

crucigera.

Icon. Plum. ic. t. 58.

In shady woods: Carolina to Florida. b. June, July. v. v. Flowers yellowish-scarlet.

2. B. foliis conjugatis cirrhosis, foliolis oblongis basi subcapreolata. cordatis, imis simplicibus.-Willd. sp. pl. 3. p. 297.

Icon. Bot. mag. 864. Jacq. hort. schoenbr. 363.

In shady woods, on the banks of rivers and lakes: Virginia to Florida. 1. July, Aug. v. v. Flowers scarlet.

radicans.

3. B. foliis pinnatis, foliolis ovatis dentatis acuminatis, corymbo terminali, tubo corollæ calyce triplo longiore, caule radicante.—Willd. sp. pl. 3. p. 301.

Tecoma radicans. Juss.

flammea.

a. B. floribus luteo-coccineis. Icon. Schmidt arb. t. 42.

coccinea.

β. B. floribus coccineis.

Icon. Schmidt arb. t. 43 & 44. Bot. mag. 485. Catesb. car. 1. t. 65.

On the banks of rivers: Pensylvania to Florida. L. July, Aug. v. v. This highly ornamental creeper ascends the tallest trees and highest rocks, and with its large scarlet flowers produces one of the most pleasing effects in ornamental gardening.

## 504. RUELLIA. Gen. pl. 1050.

strepens.

1. R. erecta, hirsuta; foliis petiolatis lanceolato-ovatis integerrimis, pedunculis 1—3-floris, calycis laciniis lanceolatis hispidis tubo corollæ duplo brevioribus.—

Willd. sp. pl. 3. p. 363.

Icon. Schkuhr handb. 177. Dill. elth. t. 249. f. 321.
On dry hills, in shady woods: Virginia to Carolina. 4.
June, July. v. v. Flowers large, pale blue, as are all the following.

oblongifolia.

2. R. assurgens, dense pubescens; foliis subsessilibus obovato-oblongis, floribus solitariis, bracteis longitudine calycis, calycis laciniis filiformibus longitudine tubi corollæ.—Mich. fl. amer. 2. p. 23.

R. biflora. Willd. sp. pl. 3. p. 368?

In sandy pine-woods: Georgia. 4. June, July. v.s. Flowers yellowish-blue.

hybrida.

 R. erecta, ramosissima, pilis albidis hirsuta; foliis subsessilibus oblongis utrinque subacutis dense hirsutis, bracteis calyce brevioribus, calycis laciniis linearibus tubo corollæ vix brevioribus.

In sandy fields near Savannah, Georgia. 4. July. v.s. in Herb. Enslen.

ciliosa.

4. R. erecta, ramosa; foliis subsessilibus ovato-oblongis margine nervis venisque pilis albis longe ciliatis, brac-

teis lanceolatis brevibus, calycis laciniis subulatis tubo corollæ quadruplo brevioribus.

Near Savannah, Georgia. 4. July. v. s. in Herb. Enslen.

5. R. glabriuscula, diffusa, radicans; foliis in petiolum longiuscule angustatis ovalibus obtusis, floribus subsessilibus, capsulis linearibus. Mich. fl. amer. 2. p. 23.

humistrata.

americana.

In Georgia and Florida. Michaux. +.

### 505. BUCHNERA. Gen. pl. 1035.

1. B. caule simplici, foliis lanceolatis subdentatis asperis trinervibus, spicis remotifioris.-Willd. sp. pl. 3. p. 334.

On dry sandy hills: Pensylvania to Carolina; rare. 4. July. v. v. Flowers deep blue.

## 506. ANTIRRHINUM. Gen. pl. 1007.

1. A. procumbens, pilosum; foliis alternis hastatis integerrimis, pedunculis solitariis longissimis.—Willd. sp. pl. 3. p. 234.

Elatine.

Icon. Fl. dan. 426. Engl. bot. 692.

In sandy fields: Pensylvania to Virginia. O. July, Aug. v. v. Flowers yellow mixed with purple.

Linaria.

2 A. erectum, glabrum; foliis sparsis lanceolato-linearibus confertis, spicis terminalibus densifloris, calycibus glabris calcare brevioribus. - Willd. sp. pl. 3. p. 253.

Icon. Fl. dan. 982. Engl. bot. 658.

In fields and dry hills, near houses; frequent. 4. June -Aug. v. v. Flowers large, yellow. This finelooking plant is one of the worst and most troublesome weeds in several parts of Pensylvania and Virginia.

canadense. 3. A. assurgens, glabrum, simplicissimum; foliis sparsis erectis angusto-linearibus obtusis remotis, floribus racemosis, stolonibus procumbentibus.—Willd. sp. pl. 3.

p. 255.

Icon. Vent. hort. cels 49.

In low grounds: Canada to Carolina. O. June-Aug. v. v. Flowers small, purple.

4. A. pusillum, simplex, glabrum; foliis oppositis linearibus acutis, floribus axillaribus brevi-pedunculatis, calycibus campanulatis.

tenellum.

On the banks of the Missouri. M. Lewis. O. July. v. v.; v. s. in Herb. Lewis. Flowers bright blue, large in proportion to the size of the plant.

Crontium.

A. erectum, ramosum, pubescens; foliis alternis lanceolatis, floribus subspicatis, calycibus digitatis corolla longioribus, corollis ecaudatis.—Willd. sp. pl. 3. p. 258.

Icon. Curt. fl. lond. 4. t. 45. Riv. t. 82.

In fields: Virginia; rare. O. July, Aug. v. v. Flowers pale purple.

## 507. GERARDIA. Gen. pl. 1004.

## \* Flores purpurei.

purpurea.

1. G. caule opposite ramosissimo, foliis linearibus, floribus axillaribus oppositis subsessilibus.—Willd. sp. pl. 3. p. 221.

Icon. Pluk. mant. t. 388. f. 1.

crassifolia.

β. G. foliis carnosis brevioribus.
In fields and woods: New England to Carolina. β. In salt-marshes, near New York, &c. β. July, Aug. v.v.

tenuifolia.

2. G. paniculato-ramosa; foliis linearibus, pedunculis axillaribus oppositis flore longioribus.—Willd. sp. pl. 3. p. 222.

G. erecta. Walt. fl. car. 170. Mich. fl. amer. 2. p. 20.

Icon. Pluk. alm. t. 12. f. 4.

In fields and woods: Pensylvania to Carolina.  $\sigma$ . July, Aug. v. v.

setacea.

3. G. caule ramosissimo, foliis setaceis, ramulis axillaribus folio longioribus plerumque unifloris.—Walt. ft. car. 170.

In sandy fields: Pensylvania to Virginia. ①. Aug. v. v. Resembles the foregoing one; but the flowers are not axillary but terminal, very seldom two on a branch.

auriculata.

4. G. subsimplex, tota aspera; foliis ovato-lanceolatis basi 2-auriculatis integerrimis, floribus axillaribus oppositis foliisque arcte sessilibus.—*Mich. fl. amer.* 2. p. 20.

In dry stony fields: Virginia and Illinois. O. July, Aug. v. v. Not above eight inches high, without branches.

cuneifolia.

 G. paniculato-ramosa; ramis erectis, foliis cuneatolanceolatis inæqualiter serratis superioribus alternis,





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pedunculis axillaribus folio longioribus, calycibus 5-partitis.

In Georgia. Bartram. v.s. in Herb. Banks.

6. G. ramosissima; foliis lanceolatis serratis basi attenuatis subpetiolatis, racemis terminalibus, floribus oppositis bracteatis.

In great abundance in the pine-forests of the Rocky-mountains. M. Lewis. 1/2. June. v. s. in Herb. Lewis.

Frutex elegans 3-4-pedalis ramosissimus. Rami teretes, dense foliosi, tenuissime pubescentes. Folia semuncialia, opposita, lanceolata, acuta, interdum obtusa cum mucrone, superne acute serrata, inferne quasi in petiolum attenuata, integerrima, utrinque glabra. Racemi terminales, simplices, erecti, bracteati. Flores oppositi, pedicellati, magnitudine et colore Digitalis purpurei. Bracteæ oppositæ, sessiles, oblongæ, acutæ, integerrimæ, pedicellis vix breviores. Calyx profunde 5-partitus, basi unibracteolatus: laciniis lanceolatis, acutis. Bracteolæ lineares, calyce breviores. Corollæ: Tubus calyce quadruplo longior, superne ventricosus. Limbus patens, subæqualis, 5-fidus: Laciniis rotundatis. Filamenta tubo duplo breviora, imo corollæ inserta. Antheræ oblongæ, hirsutissimæ. Stylus longitudine tubi. Capsula.....

#### \*\* Flores flavi.

7. G. pubescens; caulibus subsimplicibus, foliis subsessilibus lanceolatis integerrimis vel dentatis, inferioribus subpinnatifido-incisis, floribus axillaribus oppositis subsessilibus.—Willd. sp. pl. 3. p. 223.

Icon. Pluk. mant. t. 389. f. 3.

In dry shady and rocky woods: New England to Florida. 4. July—Sept. v. v. Flowers large, and, as all the following, yellow. It is seldom more than two feet high.

8. G. glabra; caule paniculato, foliis petiolatis pinnatifidis: laciniis lanceolatis acutis integris vel postice incisodentatis, summis lanceolatis integris, floribus axillaribus oppositis pedicellatis.

Rhinanthus virginicus. Willd. sp. pl. 3. p. 191.

Icon. Pluk. alm. t. 389. f. 1.

On the banks of rivers, in rich shady places: Pensylvania to Carolina. 4. July, Aug. v. v. From three to five feet high. This fine species has been generally Vol. 11.

fruticosa.

flava.

quercifolia.

confounded with the foregoing one, but differs widely from it. The stem is smooth, purple, with a blue dew over it, and very much branched. The flowers are nearly the size, shape, and colour of the preceding species. The original specimen of Gronovius of Rhinanthus virginicus, in the Banksian Museum, is evidently our present plant.

Pedicularia.

9. G. pubescens, brachiatim-paniculata; foliis oblongis duplicato-inciso-serratis pinnatifidisque, floribus axillaribus oppositis pedicellatis, calycis laciniis foliaceis inciso-dentatis .- Willd. sp. pl. 3. p. 223.

Icon. Lam. illustr. t. 529. f. 2.

In dry shady woods: New York to Carolina. June -Aug. v. v. A very handsome species, of which there are several very striking varieties.

cassioides.

10. G. virgatim-paniculata; foliis setaceo-pinuatifidis: laciniis linearibus.

G. Afzelia. Mich. fl. amer. 2. p. 20.

Afzelia cassioides. Gmel. syst. nat. 927. Anonymos cassioides. Walt. fl. car. 171.

In dry sandy woods of Carolina and Georgia. O. July, Aug. v. s. Flowers small, yellow.

## 508. PEDICULARIS. Gen. pl. 1003.

euphrasioides. 1. P. caule ramoso pubescente, foliis pinnatifidis dentatis, calycibus tubulosis bipartitis truncatis, corollæ galea bidentata. Willd. sp. pl. 3. p. 204.

Icon. Houttuyn. linn. syst. 8. t. 57.

In Labrador. Colmaster. 4. v. s. in Herb. Dickson. Flowers yellow; from six to eight inches high.

pallida,

2. P. caule ramoso elato glabro, foliis suboppositis lanceolatis crenatis dentatis, spica aphylla glabra, corollæ galea obtusa, calyce bifido rotundato.—Herb. Banks.

P. virginica. Lam. encycl. 5. p. 126.

In swamps, on lime-stone soil: Virginia. Lamarck. In a swamp near King's-bridge, New York. Ph. 4. July, Aug. v. v.; v. s. in Herb. Banks. Flowers yellow; grows upwards of three feet high. I considered this species to be the Rhinanthus virginicus, which Linnæus had adopted from Gronovius's Flora Virginica; but on examining the Gronovian Herbarium in the Banksian Museum, I found his Rhinanthus to be the Gerardia quercifolia.

lanceolata.

3. P. caule simplici, foliis lanceolatis inciso-dentatis, spica

aphylla, calycibus glabris, capsulis brevibus. Mich. fl. amer. 2. p. 18.

In the Illinois country. Michaux. 4.

4. P. caule simplici, foliis lanceolatis pinnatifidis dentatis, spica foliosa alternifiora hirsuta, capsulis in mucronem gladiatum exertum protractis.—*Mich. fl. amer.* 3. p. 18.

In rich soil, in grassy moist places: Pensylvania to Virginia. 4. May, June. v. v. Flowers yellow, tinged

with purple; sometimes a foot high.

P. caule simplici, foliis pinnatifidis inciso-dentatis, capitulo basi folioso hirsuto, corollis galea setaceo-bidentata, calycibus deorsum truncatis.—Willd. sp. pl. 3. p. 211.

In woods and meadows: Canada to Carolina. 24. May —July. v. v. About a span high; flowers yellowish-

white, with a tinge of purple.

 P. caule simplici glabro, foliis lanceolatis dentatis crenatis, calycibus bifidis truncatis, corollæ galea acuta. Willd. sp. pl. 3. p. 206.

Icon. Gmel. fl. sib. 3. t. 44.

In Canada. 4. July. v.s. About a foot high; flowers deep purple.

 P. caule simplici, foliis profunde pinnatifidis, pinnis lanceolatis pinnatifidis dentatis, spica compacta foliosa, calycibus glabris quinquedentatis, corollæ galea obtusissima. Willd. sp. pl. 3. p. 210.

Icon. Jacq. fl. austr. 258.

On the north-west coast. A. Menzies; and probably throughout Canada. U. July. v.s. in Herb. Banks. Flowers purple.

 P. caule simplici, foliis profunde pinnatifidis, pinnis lineari-lanceolatis crenatis, spica laxa subfoliosa, calycibus glabris 5-dentatis, corollæ galea obtusa truncata. Willd. sp. pl. 3. p. 210.

In low plains, on the waters of Clarck's river. M. Lewis. 4. July. v. s. in Herb. Lewis. Near two feet high;

flowers purple.

P. caule simplici, foliis pinnatifidis, pinnis serratis, calycibus bifidis oblongis, corollæ galea uncinata truncata. Willd. sp. pl. 3. p. 207.

Icon. Fl. dan. 2. Fl. lapp. t. 4. f. 1.

In Labrador. Colmaster. 4. July. v. s. in Herb. Dickson. Flowers yellow.

gladiata.

canadensis.

resupinata.

recutita.

elata.

lapponica.

grænlandica. 10. P. caule simplici. foliis profunde pinnatifidis, pinnis lanceolatis acuminatis serratis, calycibus glabris 5-dentatis, corollis clausis, galea uncinato-subulata. Willd. sp. pl. 3 p. 212.

Icon. Fl. dan. 1166. Retz. obs. 4. t. 1.

- In low plains of the Columbia. M. Lewis. 4. July. v. s. in Herb. Lewis. nec non Lambert. Flowers purple.
- verticillata. 11. P. caule simplici, foliis caulinis profunde pinnatifidis quaternis, pinnis linearibus acute dentatis, spica capitata involucrata, calycibus villosis 5-fidis, corollæ galea obtusissima.

P. verticillata \( \beta \). Willd. sp. pl. 3. p. 214.

P. lanata. Pallas in Herb. Lambert.

On the north-west coast. Nelson. 4. v. s. in Herb. Banks. nec non Lambert. Not above two inches high; flowers purple.

flammea.

12. P. caule simplici, foliis pinnatis, pinnis imbricatis ovatis obtusis duplicato-dentatis, calycibus 5-dentatis, corollæ galea obtusa. Willd. sp. pl. 3. p. 215.

Icon Fl. dan. 30. Fl. lapp. t. 4. f. 2. Hall. fl. helv.

t. 8. f. 3.

In Labrador. Colmaster. 21. v. s. in Herb. Dickson. Not above three inches high; flowers yellow, with a scarlet helmet.

# 509. MIMULUS. Gen. pl. 1049.

ringens.

1. M. erectus, glaber; foliis sessilibus lanceolatis acuminatis serratis, pedunculis axillaribus oppositis flore longioribus, dentibus calycis oblongis acuminatis.— Willd. sp. pl. 3. p. 360.

Icon. Bot. mag. 283. Pluk. amalth. t. 393. f. 3.

In low grounds, on clay soil: Pensylvania to Carolina. 4. July, Aug. v.v. Flowers pale blue, large.

alatus.

2. M. erectus, glaber; foliis petiolatis ovatis acuminatis serratis, pedunculis axillaribus oppositis flore brevioribus, dentibus calycis rotundatis mucronatis, caule tetragono alato.—*Willd. sp. pl. 3. p.* 361.

In ditches and on the borders of ponds: Pensylvania to Carolina. 4. July, Aug. v. v. Flowers the size

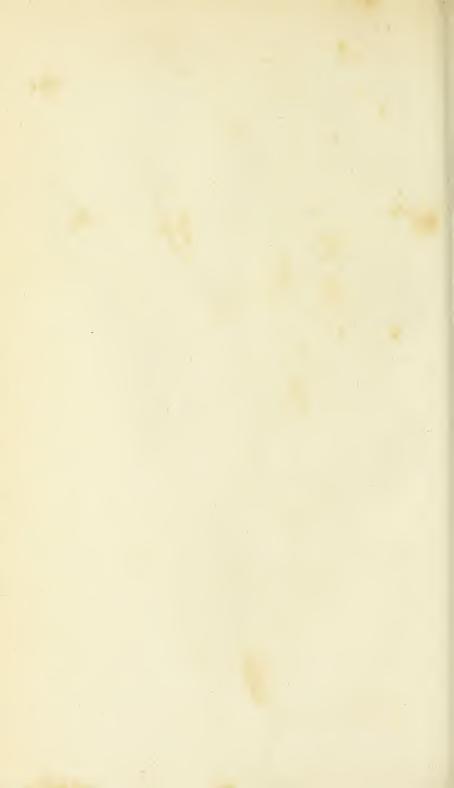
and colour of the foregoing.

luteus.

3. M. erectus, glaber, stoloniferus; foliis subrotundo-ovatis nervosis dentatis, inferioribus obtusis petiolatis, superioribus acutis arcte sessilibus, racemo terminali,

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pedunculis axillaribus oppositis elongatis, calyce inæquali, dentibus acutiusculis.—Willd sp. pl. 3. p. 361.

Icon. Feuill. peruv. 2. t. 34.

On the banks of Clarck's river, M. Lewis. On the north-west coast. Pallas. 24. July, Aug. v. s. in Herb. Lewis. nec non Lambert. Flowers golden-yellow. It has lately been introduced into the gardens, and will be a fine addition to our hardy perennal plants.

 M. erectus, pusillus, pubescens; foliis sessilibus oblongolanceolatis acutis nervosis mucronato-denticulatis floribus paucis terminalibus longissime pedunculatis, den-

tibus calycis acuminatis.

On the head springs of the Missouri, at the foot of Portage hill. M. Lewis. 4. Aug. v. s. in. Herb. Lewis. Not above eight inches high; flowers two or three, larger than any other known species, of a beautiful pale purple.

#### 510. CHELONE. Gen. pl. 1005.

 C. foliis oppositis lanceolato-oblongis acuminatis serratis, spicis terminalibus densifloris.— Willd. sp. pl. 3. p. 225.

a. C. foliis subsessilibus, floribus albis.

β. C. foliis brevi-petiolatis, floribus purpureis.

C. obliqua. Willd sp. pl. 3. p. 225.

C. purpurea. Mill. dict. n. 2.

Icon. Schkuhr handb. 172. Mill. ic. 93. Pluk. mant.

t. 348. f. 3.

On the banks of rivers, ponds, and swamps: New England to Carolina. β In rivulets on the high mountains of Virginia and Carolina. μ. July, Aug. v. v. Flowers large, in close spikes, in var. α. white; purple in var. β. I have not been able to find sufficient distinctions between C. glabra and C. obliqua, so as to consider them distinct species.

## 511. PENTSTEMON. Gen. pl. 1758.

1. P. caule glabro, foliis lævigatis ovato-oblongis basi amplexicaulibus tenuissime denticulatis, inferioribus integerrimis, floribus paniculatis, filamento sterili superne barbato. – Willd. sp. pl 3. p 228.

Chelone Penstemon. J. F. Miller. ic. 4.

Icon. Lam. illustr. 528, Arduin, spec. t. 5. Moris. hist. 2. s. 5. t. 8. f. 6.

Lewisii.

glabra.

alba. purpurea.

lævigata.

In stony low grounds: Pensylvania to Carolina. 4. July—Sept. v. v. From one to two feet high; flowers pale purple.

pubescens.

 P. caule pubescente, foliis serrulatis lanceolato-oblongis sessilibus, floribus paniculatis, filamento sterili ab apice infra medietatem barbato.—Willd. sp. pl. 3. p. 227.
 Chelone Pentstemon. Mant. 415.

latifolia.

a. P. foliis lævigatis serratis latioribus. Icon. Moris. hist. 3. s. 11.t. 21. f. 2.

angustifolia.

β. P. foliis pubescentibus obscure denticulatis angustis.
P. hirsuta. Willd. sp. pl. 3. p. 227.
Chelone hirsuta. Mill. dict. n. 3.
Icon. Moris. hist. 3. s. 11. t. 21. f. 3.

On the side of hills and in dry mendows: New York to Virginia. 2. July—Sept. v. v. About a foot high; flowers pale purple, longer than the foregoing species.

frutescens.

3. P. caule fruticoso, ramis angulatis superne pubescentibus, foliis lanceolatis obsolete denticulatis sessilibus glabriusculis, racemis terminalibus subcorymbosis, filamento sterili longitudinaliter barbato.—Lambert in linn. trans. 10. p. 259.

Icon. Linn. trans. 10. t. 6.

On the north-west coast. M. Lewis. Unalashka. Pallas. 12. v. s. in Herb. Lambert. nec non Lewis. A small shrub, about a foot or more high; flowers purple.

# 512. MARTYNIA. Gen. pl. 1010.

Proboscidea.

1. M. caule ramoso, foliis alternis cordatis integerrimis villosis.—Willd. sp. pl. 3. p. 264.

M. alternifolia. Lam. encycl. 2. p. 112.

M. annua. Sp. pl. 862.

Icon. Bot. mag. 1056. Mill. ic. 286.

On the banks of the Mississippi. ©. July. v.v. Flowers large, white, speckled with purple and yellow. The singular shape of its fruit, connected with the beauty of its flowers, makes this annual a desirable plant in all collections.

# 513. SCHWALBEA. Gen. pl. 1001.

americana.

1. S. simplex, pubescens; foliis lanceolatis, racemo terminali, floribus alternis.— Willd. sp. pl. 3. p. 201.

Icon. Lam. illustr. 520. Pluk. mant. t. 348. f. 2. In pine-barrens: New Jersey to Carolina. 4. 8.

June, July. v. v. Flowers yellowish-brown.

# 514. RHINANTHUS. Gen. pl. 997.

1. R. corollarum labio superiore emarginato bidentato, la- Crista galli. cinia media labii inferioris brevissima. Willd. sp. pl.3. p. 188.

Icon. Schkuhr handb. 169. Fl. dan. 981. Engl. bot. 657. In fields and meadows: Lower Canada. O. June, July. v.v. Flowers yellow. R. virginicus. Vid. Gerardia & Pedicularis pallida.

#### 515. BARTSIA. Gen. pl. 996.

1. B. foliis alternis linearibus indivisis, superioribus lanceolatis, floralibus subovalibus summitate subdentatis, omnibus 3-nervibus, dentibus calycis acutis. - Willd. sp. pl. 3. p. 186. Mich. fl. amer. 2. p. 17.

pallida.

Icon. Gmel. fl. sib. 3. t. 42.

In Canada and Labrador. On the White-hills of New Hampshire. Prof. Peck. 4. July. v. s. in Herb. Lambert. Flowers pale yellow; the floral leaves purple.

2. B. foliis alternis prælongo-linearibus, floralibus ovatis longissime acuminatis 3-nervibus, omnibus indivisis, floribus bracteis brevioribus, dentibus calycis acutis.

acuminata.

On the north-west coast: Unalashka. 24. v. s. in Herb. Lambert.

3. B. hirsutissima; foliis alternis linearibus inciso-pinnatifidis: laciniis filiformibus, bracteis membranaceis oblongis obtusis basi utrinque hastato-unidentatis floribus longioribus, calycibus brevibus pilosis, dentibus subulatis.

tenuifolia.

On the banks of Clarck's river. M. Lewis. 4. July. v. s. in Herb. Lewis. About a foot high; flowers deep yellow; floral leaves tinged with purple.

coccinea.

4. B. foliis alternis linearibus inciso-pinnatifidis, laciniis linearibus, bracteis dilatatis plerumque trifidis floribus longioribus, dentibus calycis rotundato-obtusis.-Willd. sp. pl. 3 p. 185.

Icon. Pluk. alm. t. 102. f. 5. Moris. hist. 3. s. 11. t. 13. f. 28.

a. B. bracteis coccineis.

β.B. bracteis lutescentibus. Rarior.

coccinea. pallens.

In wet meadows: Canada to Florida. 3. 4. June, July. v. v. Flowers yellow, involved in scarlet floral leaves, which give this plant a very elegant appearance.

alpina.

- 5. B. foliis oppositis ovatis subcordatis obtuse-serratis rugosis, antheris hirsutis.—Willd. sp. pl. 3. p. 187.
  - Icon. Fl. dan. 43. Engl. bot. 361. Schkuhr handb. 163. In Labrador. Colmaster. 24. July. v. s. in Herb. Dickson. Not above six inches high; floral leaves similar to the stem leaves, purple; flowers long, of a fine deep purple.

Gymnandra.

6. B. foliis suboppositis ovatis crenatis, binis radicalibus petiolatis, spica oblonga, verticillis bracteatis coarctatis.

—Willd. sp. pl. 3. p. 186.

Gymnandra borealis. Pall. itin. 3. t. A. f. 1. Lagotis glauca. Gært. act. petrop. 14. t. 18.

On the mouth of the river Columbia. M. Lewis. In Unalashka. Herb. Pallas. 4. v. s. in Herb. Lewis. nec non Lambert. About a span high; flowers pale blue. This singular plant grows on the most unfertile rocks, exposed to the most rigorous cold winds, in places where vegetation seems entirely to cease.

## 516. EUPHRASIA. Gen. pl. 998.

officinalis.

E. foliis ovatis obtuse-dentatis, laciniis labii corollæ inferioris emarginatis. Willd. sp. pl. 3. p. 193.
 Icon. Fl. dan. 1037. Engl. tot. 1416. Sabb. hort. 3.

t. 9.
In Canada Michaur O Iuly—Sent a s Flowers

In Canada. Michaux. ⊙. July—Sept. v.s. Flowers white, with purple veins.

latifolia.

2. E. foliis ovatis dentato-palmatis, floribus spicatis, corollis tubulosis, laciniis labii inferioris obtusis. Willd. sp. pl. 3. p. 192.

Icon. Sabb. hort. 3. t. 7. Moris. hist. 3. s. 11. t. 24. f. 8. In Labrador. Colmaster.  $\odot$ . July. v. s. in Herb. Dickson. Flowers smaller, pale purple.

## 517. MELAMPYRUM. Gen. pl. 999.

lineare.

 M. gracile; foliis inferioribus linearibus integris, floralibus lanceolatis postice dentatis, floribus axillaribus distinctis.—Lam. encycl. 4. p. 23.

M. americanum. Mich. fl. amer. 2. p. 16.

In shady woods, particularly on the mountains: Canada to Carolina. O. July, Aug. v. v. Flowers yellow.

#### 518. OBOLARIA. Gen. pl. 1044.

1. O. caule simplici, foliis oblongis truncatis carnosis subtus purpureis, floribus axillaribus solitariis sessilibus.— Willd. sp. pl. 3. p. 346.

virginica.

Icon. Pluk alm. t. 209. f. 6. Moris. hist. 3. s. 12. t.16. f. 23.

In shady rocky places: Pensylvania to Virginia; rare.

Not above three inches high; flowers pale red, in a spike, supported by purple bracteas.

#### 519. OROBANCHE. Gen. pl. 1045.

1. O. caule ramoso, floribus alternis distantibus, corollis deciduis 4-dentatis.—Willd. sp. pl. 3. p. 351.

virginiana.

Icon. Moris. hist. 3. s. 12. t. 16. f. 9.

Parasitic on the roots of beech-trees: Canada to Georgia.

4. July—Sept. v. v. Flowers small, purple. This plant is known by the name of Cancer-root, being thought to be a never-failing remedy in cancerous ulcers.

O. caule simplicissimo squamis ovali-lanceolatis imbricatis obtecto, spica terminali glabra, corollis recurvatis, staminibus exertis.— Willd. sp. pl. 3. p. 351.

Parasitic on the roots of trees: Pensylvania to Carolina.

2. July. v. v. About a span high, of a brownishyellow colour.

americana.

 O. scapis nudis unifloris, calyce ebracteato, corolla recurvata.—Willd. sp. pl. 3. p. 352. uniflora.

Icon. Pluk. mant. t. 348. f. 3.

Parasitic on the roots of different plants and shrubs: Canada to Virginia. 4. June, July. v.v. Not above two or three inches high, of a tan colour; flowers pale purple.

# XIV. TETRADYNAMIA.

#### I. SILICULOSA.

## \* Silicula integra.

520. DRABA. Silicula integra, ovali-oblonga, valvis planiusculis dissepimento parallelis.

521. MYAGRUM. Silicula suberosa, evalvis, loculis fertilibus atque spuriis, sibi mutuo superimpositis. Stylus persistens.

522. CAKILE. Silicula lanceolata, subtetragona, medio utrinque dente instructa, biarticulata, ad articulos secedens: articulis monospermis, evalvibus.

## \*\* Silicula apice emarginata.

523. ALYSSUM. Filamenta quædam introrsum denticulo notata. Silicula emarginata, plerumque pilosa.

524. CORONOPUS. Silicula reniformis, compressa, corrugata, loculis evalvibus monospermis.

525. LEPIDIUM. Silicula emarginata, cordata, polysperma: valvulis carinatis dissepimento contrariis.

526. THLASPI. Silicula emarginata, obcordata, polysperma: valvulis navicularibus, marginato-carinatis.

# II. SILIQUOSA.

- \* Calyx clausus, foliolis longitudinaliter conniventibus.
- 527. ERYSIMUM. Siliqua columnaris, tetraëdra.
- 528. CHEIRANTHUS. Silicula compressa. Stigma bilobum. Germen utrinque denticulo glandulato.
- 529. HESPERIS. Petala oblique flexa. Siliqua stricta. Stigma basi bifurca apice connivente. Glandula intra stamina breviora.
- 530. ARABIS. Siliquæ compressæ. Glandulæ nectari-

feræ 4. singula intra calycis foliola, squamæ instar reflexæ.

531. TURRITIS. Siliqua longissima, angulata, striata. Cal. connivens, erectus. Petala erecta.

532. BRASSICA. Cal. erectus, connivens. Dissepimentum prominens. Sem. globosa. Glandula inter stamina breviora et calycem. Siliqua teres, rostrata.

533. DENTARIA. Siliqua elastice dissiliens, valvulis revolutis. Dissepimentum subfungosum. Stigma emarginatum. Cal. connivens.

\*\* Calyx hians, foliolis superne distantibus.

534. CARDAMINE. Siliqua elastice dissiliens, valvulis revolutis Stigma integrum.

535. SISYMBRIUM. Siliqua rostro brevi tereti dehiscens,

valvulis rectiusculis. Corolla patens.

536. CLEOME. Glandulæ nectariferæ 3. ad singulum sinum calycis singulæ, excepto infimo. Petala omnia adscendentia. Germen stipitatum. Siliqua 1-locularis, 2-valvis.

## I. SILICULOSA.

520. DRABA. Gen. pl. 1076.

 D. scapo nudo, foliis oblongis acutis subserratis hirtis, petalis bifidis, stigmate sessili.—Willd. sp. pl. 3. p. 426.

Icon. Fl. dan. 983. Engl. bot. 586.

In cultivated grounds and old fields: Canada to Virginia.

O. March—May. v. v. All the species of this genus are small plants with white flowers.

2. D. scapo nudo, foliis ovalibus acutis hirsutissimis, siliculis longo-linearibus glabris approximatis.—*Mich. fl. amer.* 2. p. 28.

D. caroliniana. Walt. fl. car. 174.

In sandy fields: Virginia and Carolina, and on the banks of the Missouri. 
O. April—June. v.v.

 D. scapo subunifolio adscendente, foliis lanceolatis integerrimis subtomentosis: pilis stellatis, petalis retusis. — Willd. sp. pl. 3. p. 427. verna.

hispidula.

nivalis.

Icon. Fl. dan. 142. Liljeblad nov. act. ups. 6. t. 2. f. 2. In Labrador. Colmaster.  $\odot$ . May. v. s. in Herb. Dickson.

glabella.

 D. scapo subbifolio erecto, foliis spathulato-lanceolatis glabriusculis, racemo densifioro, siliculis ovato-lanceolatis acutis.

In Hudson's Bay. O. v.s. in Herb. Banks.

incana.

5. D. foliis caulinis numerosis incanis, pilis implexis stellatis, siliculis oblongis obliquis stylo brevissimo mucronatis.—*Willd. sp. pl.* 3. p. 430.

Icon. Fl. dan. 130. Engl. bot. 388. Pluk. alm. t. 42.

In Labrador, J. May, June. v. s. in Herb, Lambert.

arabisans.

 D. caule folioso subramoso, foliis radicalibus cuneatolanceolatis, caulinis lanceolatis, omnibus acutis divaricato-dentatis, siliculis stylo acuminatis.—Mich. fl. amer. 2. p. 28.

On rocks, near the banks of rivers: Canada to Virginia.

3. May, June. v. v. I collected specimens on the

rocks near Harper's Ferry, Virginia.

#### 521. MYAGRUM. Gen. pl. 1069.

argenleum.

1. M. undique cano-tomentosum; siliculis oblongis pedunculatis tomentosis, foliis lineari-spathulatis sensim attenuatis integerrimis, petalis obovatis.

On the banks of the Missouri. 3. v. s. Flowers yellow; the whole of the plant has some resemblance to

Alyssum saxatile.

## 522. CAKILE. Gært. sem. 2. p. 287.

maritima.

1. C. foliis pinnatis, pinnis linearibus subdentatis. Willd, sp. pl. 3. p. 416.

Bunias Cakile. Sp. pl. 936.

Icon. Engl. bot. 231.

On the sea-coast: Canada to Virginia. O. July, Aug. v. v. Flowers purple.

## 523. ALYSSUM. Gen. pl. 1081.

hyperboreum. 1. A. caulibus herbaceis, foliis incanis dentatis, staminibus 4. bifurcatis. Willd. sp. pl. 3. p. 463.

Icon. Kraschen. act. petr. 1747. t. 15. f. 1.

On the north-west coast. +.

#### 524. CORONOPUS. Gært, sem. t. 142.

1. C. siliculis integris cristato-muricatis, stylo porrecto, corymbis paucifloris. Smith fl. brit. 2. p. 690. Cochlearia Coronopus. Willd, sp. pl. 3. p. 450.

Ruellii.

Icon. Fl. dan. 202. Engl. bot. 1660. Cn road-sides: Virginia and Carolina. O. June—Aug. v. v. Flowers very small, white.

didyma.

2. C. siliculis emarginatis didymis reticulato-rugosis, stylo obsoleto, corymbis multifloris. Smith A. brit. 2. p. 691.

Cochlearia humifusa. Mich. fl. amer. 2. p. 27. Lepidium didymum. Willd. sp. pl. 3. p. 439. Lepidium anglicum. Huds. angl. 280.

Biscutella apetala Walt. fl. car. 174. In cultivated grounds of Virginia and Carolina. ①. June

-Aug. v.v. Smaller than the foregoing species; both have pinnated leaves.

#### 525. LEPIDIUM. Gen. pl. 1077.

1. L. foliis radicalibus pinnatifidis, caulinis lineari-lanceolatis subinciso-serratis, floribus 4-petalis diandris, siliculis lentiformibus. - Willd. sp. pl. 3: p. 440.

virginicum.

Icon. Sloan. jam. 1. t. 123. f. 3. Moris. hist. 2. s. 3. t. 21. f. 2.

In dry fields and orchards: New York to Carolina. 3. June-Aug. v. v. About a foot high; flowers not conspicuous.

# 526. THLASPI. Gen. pl. 1078.

1. T. siliculis orbiculatis compressis lævibus, foliis oblongis dentatis glabris .- Willd. sp. pl. 3. p. 442.

arvense.

Icon. Ft. dan. 793. Engl. bot. 1659.

In stony fields: New York and Pensylvania; rare. O. June, July. v. v.

2. T. hirsutum, siliculis deltoideo-obcordatis, foliis radica- Bursa pastolibus pinnatifidis. — Willd. sp. pl. 3. p. 447. ris.

Icon. Engl. bot. 1485. Schkuhr handb. 180.

A common weed, every where to be found in cultivated grounds. O. April-Sept. v. v.

# II. SILIQUOSA.

## 527. ERYSIMUM. Gen. pl. 1090.

officinale.

E. siliquis spicæ adpressis, foliis uncinatis. Willd. sp. pl. 3. p. 509.
 Icon. Fl. dan. 560. Schkuhr handb. 193.
 On road sides, frequent: Canada to Carolina. O. June,

July. v. v. Flowers small, yellow.

cheiranthoi-

2. E. siliquis erectis, pedicellis fructiferis patentibus, foliis lanceolatis subintegerrimis.—Willd. sp. pl. 3. p. 511. Icon. Fl. dan, 731 & 923. Engl. bot. 942. Jacq. fl. austr. 23.

In old fields and on road sides: Virginia; rare. Q. June, July. v.v. Flowers yellow.

lanceolatum.

3. E. foliis lanceolatis inferioribus dentatis, unguibus calyce longioribus, laminis orbiculato-obovatis, stigmate sessili. Ait. kew. ed. 2. t. 4. p. 116.

Cheiranthus erysimoides. IVilld. sp. pl. 3. p. 514.
Icon. Jacq. fl. austr. 74.

# 528. CHEIRANTHUS. Gen. pl. 1091.

On the banks of the Missouri. 3. June. v. s.

Pallasii.

 C. caule simplici tereti glabriusculo, foliis glabris lanceolato-linearibus attenuatis repando-dentatis.
 On the north-west coast. Pallas. J. July. v.s. in Herb. Lambert. Flowers dark red, the size of C. Cheiri.

## 529. HESPERIS. Gen. pl. 1093.

pinnatifida.

H, foliis argute serratis: superioribus lanceolatis, inferioribus inferne pinnatifidis, siliquis brevi-pedunculatis breviusculis. Mich. ft. amer. 2. p. 31.
 In shady woods: Kentucky and Tennassee. June. v. v.

530. ARABIS. Gen. pl. 1049.

alpina.

1. A. foliis oblongo-lanceolatis amplexicaulibus acute dentatis. Willd. sp. pl. 3. p. 534.

Icon. Bot. mag. 226. Fl. dan. 62.

In Labrador. Colmaster. 21. May, June. v. s. in Herb. Dickson. Flowers, as all the following, white.

2. A. foliis radicalibus oblongis petiolatis, caulinis lanceolatis sessilibus, caule erecto basi hirto, petalis calyce duplo longioribus. Willd. sp. pl. 3. p 535.

Icon. Schkuhr handb. 185. Curt. fl. lond. 2. t. 49.

In dry sandy fields and on old walls: New England to Virginia.  $\odot$ . April—July. v.v.

3. A. foliis subrotundis integerrimis hirsutis, surculis reptantibus. Willd. sp. pl. 3. p. 536.

Icon. Pluk. alm. t. 51. f. 5.

In sandy fields: Pensylvania to Virginia. 2. June, July.

4. A. foliis glabris, radicalibus lyratis, caulinis linearibus. Willd. sp. pl. 3. p. 538.

In fields and on dry hills: Canada to Pensylvania. . . March-May. v. v.

5. A. foliis dentatis obtusis hispidis, radicalibus sublyratis, caulibus hispidis, petalis erectis.—Willd. sp. pl. 3. p. 539.

A. hispida. Ait. kew. 2. p. 400.

Icon. Engl. bot. 614.

In Labrador. Colmaster. 4. May. v. s. in Herb. Dickson.

6. A. foliis lanceolatis utrinque angustatis remote dentatis hastato-sessilibus, siliquis pendulis ancipitibus falcatis .- Mich. fl. amer. 2. p. 31.

A. canadensis. Willd. sp. pl. 3. p. 540.

Turritis foliis lanceolatis dentatis, radicalibus maximis, siliquis compressis falcatis. Gron. ft. virg. 1. p. 77.

Icon. Pluk. alm. t. 86 f. 8.

In rocky shady situations: Canada to Virginia. 21. May, June. v. v.; v. s. in Herb. Gronov. From two to five feet high.

7. A. foliis glabris rhomboideis repando-obsolete-dentatis, infimis longe petiolatis, radice tuberosa.—Pers. syn. 2. p. 204.

A. bulbosa. Muhlb. in litt.

A. amara. Herb. Banks.

A. foliis ovatis denticulatis glabris. Gronov. virg. 99.

On the borders of rivulets and springs. 24. March-May. v. v. This is one of the early spring flowers; the taste resembling spring cresses. It would be desirable to have it introduced into the gardens for that purpose, as it will grow in any soil.

thaliana.

reptans.

lykata.

stricta.

falcata.

rhomboidea.

#### 531. TURRITIS. Gen. pl. 1095.

- lævigata.
- 1. T. foliis glabris, radicalibus obovatis serratis, caulinis lanceolato-linearibus integerrimis amplexicaulibus. Willd. sp. pl. 3. p. 543.

On rocks: Pensylvania to Virginia; rare. 3. May, June. v. v. Very smooth and glaucous, about a

foot high.

ovala.

2. T. pubescens; foliis radice as petiolatis ovatis dentatis obtusis, caulinis an aulibus oblongis serratis acutis.

On rocks: Pensylvania to Virginia. & May, June:

Resembles T. hirsuta.

## 532. BRASSICA. Gen. pl. 1096.

Napus.

B. radice caulescente fusiformi, foliis lævibus, superioribus cordato-lanceolatis amplexicaulibus, inferioribus lyratis dentatis. Willd. sp. pl. 3. p. 547.

Icon. Engl. bot. 2146.

Rape frequently is found wild, but is of European origin. 3. May, June. v. v.

Rapa.

 B. radice caulescente orbiculari depressa carnosa, foliis radicalibus lyratis scabris, caulinis integerrimis lævibus. Willd. sp. pl. 3. p. 548.

Icon. Engl. bot. 2176.

Turnips are likewise apparently indigenous.

## 533. DENTARIA. Gen. pl. 1087.

laciniata.

 D. foliis ternis ternatis, foliolis tripartitis lineari-oblongis incisis dentatis, radicis tuberibus moniliformibus.— Willd. sp. pl. 3. p. 479.

D. concatenata. Mich. fl. amer. 2. p. 30.

In shady mountainous situations: New England to Carolina. 4. May, June. v. v. Flowers large, pale purple.

diphylla.

 D. caulibus approximate diphyllis, foliolis ternis ovatooblongis inæqualiter inciso-dentatis, radice dentata.— Mich. fl. amer. 2. p. 30.

Icon. Bot. mag. 1465.

In shady beech-woods, on high mountains: Pensylvania to Carolina. 2. May, June. v. v. Flowers pale red, with a tinge of yellow. The roots of this plant

are of a pungent mustard-like taste, and are used by the natives instead of mustard; in the mountains it is generally known by the name of *Pepper-root*. The figure in the Botanical Magazine is taken from an individual plant, in which the radical leaf is bilobated, which is not always the case.

3. D. caule distanter diphyllo, foliis sessilibus ternatis, foliolis lineari-ellipticis regris, petalis cuneatis.

On the banks of the Herb. Lewis. Very purple.

On the banks of the mbia. 2. April. v. s. in der; leaves small; flowers purple.

tenella.

#### 534. CARDAMINE. Gen. pl. 1088.

1. C. foliis simplicibus suborbiculatis integriusculis, caulibus simpliciusculis debiliter procumbentibus. Mich. fl. amer. 2. p. 30.

On rocks, in the rivulets of the high mountains of Virginia and Carolina. 4. May, June. v. The flowers of all the following species are white and small.

2. C. caule nudo, foliis radicalibus lanceolatis inciso-dentatis glabris, siliquis turgidis subarticulatis.

On the north-west coast. Nelson. 4. v. s. in Herb. Banks. A doubtful species.

3. C. parvula; caulibus decumbentibus, foliis radicalibus spathulatis pubescentibus, caulinis lineari-cuneatis integris dentatisque, siliquis divaricato-laxis.—*Mich. fl. amer.* 2. p. 29.

On high mountains of Carolina. Michaux. +.

C. pusilla, acaulis; foliis obtuse lyrato-pinnatifidis, pedunculis radicalibus unifloris. Mich. fl. amer. 2. p. 29.
 On rocks near Knoxville, Kentucky. Michaux. +.

C. pusilla, erecta, ramosa; foliis omnibus sublyratopinnatifidis, siliquis brevibus linearibus acuminatis teretibus, brevissime pedicellatis. Mich. fl. amer. 2.
p. 29.

In overflowed places: New England to New Jersey. 2. June, July. v. v.

 C. glabra, erecta; foliis pinnatis, foliolis lanceolatis subauriculatis, siliquis longis stricte erectis.— Willd. sp. pl. 3. p. 488.

Icon. Pluk. alm. t. 101. f. 4. Petiv. gaz. t. 105. f. 18. In low meadows: Canada to Carolina. 4. May, Junę.

tenetta.

articulata.

spathulata.

uniflora.

teres.

virginica,

pensylvanica. 7. C. glabra, ramosa; foliis pinnatis, foliolis subrotundooblongis obtusis angulato-dentatis, siliquis angustis erectis.—Willd. sp. pl. 3. p. 486. In low meadows: New York to Pensylvania. 4. June.

pratensis. 8. C. glabra, erecta, simplex; foliis pinnatis, foliolis radicalibus subrotundis dentatis, caulinis lanceolatis subintegris, racemis subcorymbosis.—Willd. sp. pl. 3. p. 487.

Icon. Fl. dan. 1039. Engl. bot. 776.

In meadows: Hudson's Bay. 4. May. v. s. in Herb. Banks. Flowers large, reddish purple.

9. C. pubescens, ramosa; foliis interrupte pinnatis, pinnis bipinnatifidis, laciniis rotundatis incisis, siliquis brevibus .- Herb. Banks. In Florida. Bartram. 4. v. s. in Herb. Banks.

#### 535. SISYMBRIUM. Gen. pl. 1089.

1. S. siliquis declinatis brevibus, foliis pinnatis, foliolis subrotundis repando-pauci-dentatis. - Willd. sp. pl. 3. p. 489.

Icon. Fl. dan. 690. Schkuhr handb. 187.

In rivulets and springs: New England to Virginia. 4. June, July. v. v. Water-Cress is found in most countries; I observed it in abundance in the rivulets on the high mountains of the island of Dominica.

2. S. siliquis declinatis oblongo-ovatis, foliis pinnatifidis serratis, petalis calyce brevioribus. Willd. sp. pl. 3. p. 490.

S. terrestre. Smith fl. brit. 2. p. 701.

Icon. Fl. dan. 409. Schkuhr handb. 187.

In inundated and low grounds: Canada to Carolina. . July, Aug. v. v. Flowers yellow.

3. S. siliquis declinatis oblongo-ovatis, foliis oblongo-lanceolatis pinnatifidisve serratis, petalis calyce longioribus. Willd. sp. pl. 3. p. 491.

Icon. Fl. dan. 984.

In ponds and ditches: Pensylvania to Virginia. 4. June, Aug. v. v. Flowers yellow.

4. S. foliis pinnato-decompositis subpilosis, petalis calyce minoribus. Willd. sp. pl. 3. p. 500. Icon. Fl. dan. 528. Engl. bot. 963.

On road sides: Virginia; rare. O. July, Aug. v. v. Flowers very small, pale yellow.

multifida.

Nasturtium.

palustre.

Sophia.

amphibium.

#### 536. CLEOME. Gen. pl. 1099.

1. C. floribus gynandris, foliis quinatis, caule inermi. pentaphylla. Willd. sp. pl. 3. p. 564.

Icon. Jacq. hort. vind. 24. Rheed. mal. 9. t. 24.

In cultivated grounds: Pensylvania and Virginia; rare. O. July. v. v. Flowers pale red, of a singular structure.

2. C. glabra; floribus hexandris, foliis ternatis, foliolis lanceolatis tenuissime serrulatis, racemo elongato, bracteis linearibus.

serrulata.

On the banks of the Missouri. O. Aug. v. s. in Herb. Lewis. Flowers pale purple or white.

3. C. glabrum; floribus dodecandris, foliis ternatis ellipticis, dodecandra. floribus axillaribus solitariis.—Willd. sp. pl. 3. p. 566. Icon. Sloan. hist. 1. t. 124. f. 1.

On the banks of the Mississippi. O. July. v. v. Flowers purple.

# XV. MONADELPHIA.

#### I. TRIANDRIA.

537. PHYLLANTHUS. Cal. 6-partitus, campanulatus. Cor. O. Styli 3. bifidi. Caps. 3-locularis. Sem. solitaria. Monoicus.

538. MELOTHRIA. Cal. 5-dentatus. Cor. campanulata,

Stigm. 3. Bacca 3-locularis, polysperma.

539. MOMORDICA. Cal. 5-fidus. Cor. 5-partita. Styl. 3-fidus. Pepo sicca elastice dissiliens. Sem. compressa. Monoica.

540. SICYOS. Cal. 5-dentatus. Cor. 5-partita. 3-fidus. Pepo monosperma. Monoica. Styl.

#### II. PENTANDRIA.

541. PASSIFLORA. Cal. 5-partitus. Pet. 5. calyci inserta. Nectar. corona filamentosa. Styli 3. Pepo pedicellata.

542. IRESINE. Cal. 2-phyllus. Pet. 5. Nectar. 5-6-7. Stigm. 2. sessilia. Caps. seminibus tomentosis.

Dioica.

543. ILLECEBRUM. Cal. 5-phyllus, cartilagineus. Cor. 0. Squamulæ 5. basi in tubum connatæ. Stigma 2-fi-

dum. Caps. 1-sperma, calyce tecta.
544. GALAX. Cal. 5-partitus. Pet. 5. imo staminum affixa. Urceolus 10-fidus, laciniis 5. alternis brevioribus, antheriferis. Stigm. 3-lobum. Caps. 3-locularis, 3-valvis, polysperma.

545. LOBELIA. Cal. 5-fidus. Cor. 1-petala, irregularis,

sæpius fissa. Caps. infera, 2-3-locularis.

#### III. DECANDRIA.

546. GERANIUM. Cal. 5-phyllus. Pet. 5. Stam. 10. Stigm. 5. Arilli 5. monospermi, aristati.

#### IV. POLYANDRIA.

547. HALESIA. Cal. 4-dentatus, superus. Cor. 4-fida. Stam. 8—12. Nux 4-angularis, 2-sperma.

548. STYRAX. Cal. subinteger, inferus. Cor. infundibuliformis, 5—7-partita. Stam. 8—16. Drupa 1—

2-sperma, coriacea.

549. HOPEA. Cal. 5-fidus, superus. Cor. 5-petala. Stam. multa, connata in 5. corpora. Styl. 1. Drupa nuce 3-loculari.

550. GORDONIA. Cal. 5-phyllus. Pet. 5. basi connata. Styl. 5-gonus, stigmate 5-fido. Caps. 5-locularis. Recept. centrale, columnare. Sem. bina, ala foliacea.

551. STEWARTIA. Cal. 5-partitus. Pet. 5. Styl. 5. connati s. liberi. Stigm. capitatum, sub-5-lobum. Caps. 5-locularis, 5-valvis, valvulis medio septiferis, loculis 1-2-spermis. Sem. 1-2. ossea.

552. SIDA. Cal. simplex, angulatus. Styl. multiparti-

tus. Caps. plures, 1-spermæ.

553. CRISTARIA. Cal. simplex, 5-fidus. Pet. 5. unguiculata. Styli plures. Fructus orbiculato-depressus, pellicula tectus, dehiscens in Arillos bialatos.

554. MALVA. Cal. duplex: exterior 3-phyllus. Pet. 5.

Caps. plurimæ, evalves, 1-spermæ.

555. MALOPE. Cal. duplex: exterior 3-phyllus. Caps. absque ordine glomeratæ, monospermæ.

556. HIBISCUS. Cal. duplex: exterior polyphyllus. Pet. 5. Caps. 5-locularis, polysperma.

## I. TRIANDRIA.

## 537. PHYLLANTHUS. Gen. pl. 1412.

 P. foliis obovatis obtusiusculis, floribus geminis axillaribus pedicellatis, caule erecto ramoso tereti. Willd. sp. pl. 4. p. 574. olovatus.

P. carolinensis. Walt. fl. car. 228. Mich. fl. amer. 2.

p. 209.

In gravelly soil, on the banks of rivers: Pensylvania to Georgia. ①. June, July. v. v. About a span or more high; the branches grow regularly in two rows.

#### 538. MELOTHRIA. Gen. pl. 68.

pendula.

1. M. foliis subreniformibus lobato-angulosis: lobo impari cæteris æquali, bacca cylindraceo-ovata. Mi h. fl. amer. 2. p. 217. Willd. sp. pl. 1. p. 189.

Icon. Pluk. alm. t. 85. f. 5.

In sandy, wet places, particularly on the islands of large rivers: Virginia to Georgia. ⊙. June. v. v. Flowers small, yellow. Fruit the size of a pea, black.

#### 539. MOMORDICA. Gen. pl. 1477.

echinata.

1. M. pomis tetraspermis subrotundis setoso-echinatis, folius cordatis 5-lobo-angulatis acuminatis integerrimis glabris. Willd. sp. pl. 4. p. 605.

Sicyos lobata. Mich. fl. amer. 2. p. 217.

In the western parts of the United States: On the banks of the Ohio and Mississippi. ①. July. v. v. Fruit the size of a gooseberry.

## 540. SICYOS. Gen. pl. 1481.

angulata.

 S. foliis angulo obtuso cordatis 5-angularibus denticulatis scabris, fructibus capitatis, hispidis.—Willd. sp. pl. 4. p. 625.

Icon. Dill. elth. t. 51. f. 59. Herm. parad. t. 133. On the banks of rivers: Canada to Carolina. O. June, July. v. v.

# II. PENTANDRIA.

# 541. PASSIFLORA. Gen. pl. 509.

lutea.

1. P. foliis cordatis trilobis obtusis glabris, petiolis eglandulosis, pedunculis axillaribus geminis, petalis calyce duplo angustioribus. Willd. sp. pl. 3. p. 615.

Icon. Cavan. diss. 10. t. 267. Jacq. ic. 3. t. 607.

On the banks of rivers, in shady rocky situations: Virginia to Florida. 4. June-Aug. v. v. Flowers small, greenish-yellow.

2. P. foliis peltatis profunde trilobis glabris, lobis linearilanceolatis divaricatis, petiolis biglandulosis, pedunculis solitariis axillaribus, floribus apetalis. Willd. sp. pl. 3. p. 617.

Icon. Cavan. diss. 10. t. 274. Pluk. alm. t. 210. f. 4. In Virginia and Georgia. h. v. s. Flowers of a mid-

dle size.

3. P. foliis trilobis serratis, lobis oblongis acutis, petiolis biglandulosis, involucro triphyllo, foliolis lanceolatis glanduloso-dentatis, filis coronæ corolla longioribus. Willd. sp. pl. 3. p. 621.

Icon. Cavan. diss. 10. 293. Hern. mex. t. 888. Rob.

ic. 193.

On the banks of rivers of Virginia and Carolina. June-Aug. v.v. Flowers beautiful, blue and variegated.

#### 542. IRESINE. Gen. pl. 1519.

1. I. foliis punctato-scabris, inferioribus lato-ovalibus, superioribus ovato-lanceolatis, panicula ramosa conferta,

caule sulcato. - Willd. sp. pl. 4. p. 765.

In overflowed grounds, on the banks of rivers: Virginia to Florida. O. July, Aug. v. v. Flowers exceeding small.

# 543. ILLECEBRUM. Gen. pl. 407.

1. I. caulibus repentibus hirsutis, foliis lato-lanceolatis pe- polygonoides. tiolatis, capitulis orbiculatis nudis sessilibus. - Willd. sp. pl. 1. p. 1208.

Gomphrena polygonoides. Sp. pl. 225.

I. Achyrantha. Walt. fl. car. 103.

Icon. Sloan. hist. 1. t. 86. f. 2.

On the sea-coast: Virginia to Carolina; plentifully about Charlestown, South Carolina. 4. June— Aug. v.v. A low creeping plant, with small flowers, in spiny clusters.

2. I. caulibus repentibus glabris, foliis lato-lanceolatis petiolatis, capitulis orbiculatis pubescentibus. Willd, sp.

pl. 1. p. 1208. Achyranthes ficoidea. Pers. syn. 1. p. 259. peltata.

incarnata.

celosioides.

ficoideum.

Icon. Jacq. amer. t. 60. f. 4.

On the sea-coast: Carolina to Florida. 21. July, Aug. v. v. Resembles the former one.

vermiculatum. I. glabrum; caulibus repentibus, foliis subteretibus carnosis, capitulis solitariis terminalibus oblongis.—Sp. pl. 300.

Gomphrena vermicularis. Willd. sp. pl. 1. p. 1322. Icon. Herm. parad. t. 15. Pluk. alm. t. 75. f. 9. On the sea-coast: Carolina to Florida. 4. June—Aug.

dichotomum.

 I. caulibus suffruticosis diffusis, foliis linearibus planis acutis margine scabris, cyma dichotoma. — Willd. sp. pl. 1. p. 1196.

In Virginia. b. +. I never saw this plant either liv-

ing or in a dried state.

#### 544. GALAX. Gen. pl. 382.

Erythrorhiza. Mich. fl. amer. 2. p. 34.

rotundifolia.

1. G. glaberrima; foliis orbiculato-reniformibus dentatis, spica longissima.

Galax aphylla. Willd. sp. pl. 1. p. 1146. Blandfordia cordata. Bot. rep. 343. Solanandra cordifolia. Vent. malm. 69.

Erythrorhiza rotundifolia. Mich. fl. amer. 2. p. 36. Icon. Mich. fl. amer. 2. t. 36. Vent. l. c. Bot. rep. 343.

On the side of shady hills, near rivulets, in the high mountains of Virginia and Carolina. 2. May, June. v. v. Flowers white, in long and close spikes. In the Virginia mountains this plant is known by the name of Carpenter's-leaf, being used in healing all kinds of wounds and cuts.

# 545. LOBELIA. Gen. pl. 1363.

Dortmanna.

1. L. foliis radicalibus linearibus recurvis fistulosis bilocularibus integerrimis, scapo simplici subnudo racemoso, floribus remotis pendulis.—Willd. sp. pl. 1. p. 938.

Icon. Fl. dan. 39. Engl. bot. 140.

On Hudson's Bay. Michaux. 4. July, Aug. v. s. Flowers light blue.

Kalmii.

L. tenuis, erecta, simpliciuscula; foliis radicalibus spathulatis, caulinis linearibus tenuissime denticulatis, floribus racemosis alternis remotis pedicellatis.— Willd. sp. pl. 1. p. 939.

In low sandy fields and meadows: Canada to Carolina. 3. O. July, Aug. v.v. Flowers small, blue.

3. L. erecta, simplex, subpubescens; foliis oblongis obtu- Claytoniana. siusculis, radicalibus integerrimis, caulinis superne denticulatis, racemo virgato, bracteis subulatis.-Mich. fl. amer. 2. p. 153.

Rapuntium foliis villosis mollibus, &c. Gron. virg. 135.

L. spicata. Lam. encycl. 3. p. 587.

L. goodenioides. Willd. hort. berol. 30. cum icone.

In shady woods and on grassy hills: New York to Carolina. 4. July—Sept. v. v. About eighteen inches high; flowers pale blue, small.

4. L. erecta, glaberrima; foliis lato-lanceolatis serratis, spica multiflora secunda, calycis laciniis integerrimis, corollæ laciniis inferioribus ovalibus acutis.—Mich. fl. amer. 2. p. 153.

On the mountains of Virginia and Carolina. 4. July, Aug. v. v. Flowers of a beautiful sky-blue. From

two to three feet high.

5. L. erecta, subramosa, subpubescens, lucida; foliis lanceolatis glanduloso-serrulatis subcarnosis, floribus racemosis brevi-pedunculatis, calycis laciniis revolutis dentatis .- Walt. fl. car. 218.

L. crassiuscula. Mich. fl. amer. 2. p. 152.

In pine-swamps: Virginia to Florida. 4. July, Aug. v. v. From eight inches to a foot high; flowers dark blue.

6. L. erecta, simplicissima, pubescens; foliis oblongo-ovalibus repando-serrulatis, floribus spicatis alternis subsessilibus, germinibus hispidis, calycibus ciliatis.-Mich. fl. amer. 2. p. 152.

In the range of mountains, from Virginia to Carolina. 4. July, Aug. v. v. From one to two feet high;

flowers middle size, sky blue.

7. L. erecta, simplex, hirtella; foliis ovato-lanceolatis subserratis, racemo folioso, calycibus hirsutis, sinubus reflexis. Willd. sp. pl. 1. p. 945.

Icon. Rob. ic. 136. Jacq. ic. 3. t. 597.

In low grounds, on the banks of rivers and near springs: New York to Carolina. 4. July, Aug. v. v. Flowers large, blue. This plant is possessed of great medicinal virtues; on account of which it was introduced into Europe nearly two hundred years ago.

amoena.

glandulosa.

puberula.

Siphilitica.

cardinalis.

8. L. erecta, simplex, pubescens; foliis ovato-lanceolatis acuminatis eroso-denticulatis, racemo subsecundo multistoro, genitalibus corolla longioribus.-Willd. sp. pl. 1. p. 944.

Icon. Bot. mag. 320. Rob. ic. 137. Knorr delic. 2. t. L. 2.

In swamps and meadows near springs: Canada to Carolina. 4. July—Sept. v. v. This beautiful plant, with its bright scarlet flowers, rises to the height of from two to four feet. I have seen a white variety of it.

fulgens.

9. L. erecta, simplex, subpubescens; foliis elongato-lanceolatis attenuatis subintegerrimis, racemo multifloro, genitalibus longitudine corollæ.—Donn. cutal.

Icon. Bot. rep. 659. On the Mississippi. 4. June, July. v. v. in Hortis. This species exceeds in splendour of colour and in size the preceding one.

inflata.

10. L. erecta, ramosa, hirsutissima; foliis ovatis serratis, racemis foliosis, capsulis inflatis.-Willd. sp. pl. 1. p. 946.

In fields and woods, common: Canada to Carolina. O. June—Aug. v. v. Flowers blue, small.

Cliffortiana. 11. L. glabra, superne ramosa; foliis petiolatis ovatis crenato-dentatis, infimis suborbiculatis, racemis laxis, pedunculis elongatis. - Willd. sp. pl. 1. p. 946.

Icon. Plum. ic. 235. f. 2.

In old fields: Virginia. O. June, July. v. v. Flowers very small, purple.

## II. DECANDRIA.

546. GERANIUM. Gen. pl. 1118.

maculatum.

1. G. erectum, retrorsum pubescens; caule dichotomo, foliis oppositis 3-5-partitis incisis, summis sessilibus, pedunculis elongatis bifloris, petalis obovatis.—Willd. sp. pl. 3. p. 705.

Icon. Cavan. diss. 4. t. 86. f. 2. Dill. elth. t. 132. f. 159. In shady woods and meadows: Canada to Carolina. 24. May-July. v. v. Flowers purple, large.

dissectum.

species is known in some parts of the mountains by the name of *Alum-root*, on account of the astringent taste of its roots, which are very successfully employed in curing the flux among children, which is a disease very prevalent in those countries.

2. G. diffusum, pubescens; foliis oppositis 5-lobis, lobis carolinianum. trifido-incisis, pedunculis bifloris subfasciculatis, petalis emarginatis longitudine calycis aristati, arillis villosis.—Willd. sp. pl. 3. p. 711.

G. lanuginosum. Jacq. hort. schoenb. 2. t. 140.

Icon. Cavan. diss. 4. t. 84. f. 1. & t. 124. f. 2. Dill. elth. t. 135. f. 162.

In fields: Virginia to Georgia. 3. June, July. v.v. Flowers small, white, with red veins.

 G. diffusum, pubescens; foliis oppositis 5-partitis, lobis 3-fidis incisis linearibus, pedunculis bifloris elongatis, petalis emarginatis longitudine calycis aristati, arillis pilosis, pilis glandulosis.—Willd. sp. pl. 3. p. 712.

Icon. Cavan. diss. 4. t. 78. f. 2.

In fields: New York. O. June, July. v. v. Flowers rose-coloured, larger than the foregoing one.

4. G. diffusum, hirsutum; foliis oppositis ternatis quina-robertianum. tisque trifido-pinnatifidis, pedunculis bifloris, petalis integris calyce aristato duplo longioribus, arillis reticulatis.—Willd. sp. pl. 3. p. 714.

Icon. Fl. dan. 694. Cavan. diss. 4. t. 86. f. 1.

In shady moist places, on rocks: New York to Virgiginia; rare. J. June—Aug. v. v. Flowers pale red. It is singular, that the American plant has not that heavy scent the European is so well known by, though its other characters agree exactly.

## III. POLYANDRIA.

547. HALESIA. Gen. pl. 814.

1. H. foliis ovatis acuminatis argute serratis, floribus dodecandris, fructu subæqualiter rhomboideo-tetraptero.— Willd. sp. pl. 2. p. 849.

Icon. Bot. mag. 910. Cavan. diss. 6. t. 186. Catesb. car. 1. t. 64.

In shady woods, on the banks of rivers: Carolina. P. April, May. v. v. A handsome small tree; flowers white, resembling those of Snow-drops, from which it has been called Snow-drop Tree or Silver-bell Tree.

diptera.

2. H. foliis oblongo-ovatis obtuse-acuminatis membranaceis, floribus octandris, fructu subelliptico, alis alternis majoribus.—Willd. sp. pl. 2. p. 849.

Icon. Cavan. diss. 6. t. 187.

In shady forests of Georgia. 1. April, May. v. v. s. fl.; v. s. in Herb. Lyon. Flowers larger than the preceding species.

parviflora.

3. H. fructu inæqualiter subtetraptero clavato floribusque parvulis.—*Mich. fl. amer.* 2. p. 40.

In Florida near Matanza. *Michaux*. b. +.

#### 548. STYRAX. Gen. pl. 753.

grandifolium. 1. S. foliis lato-obovatis acuminatis subtus tomentosis, racemis multifloris elongatis, pedunculis inferioribus axillaribus solitariis unifloris.—Willd. sp. pl. 2. p. 622.

S. officinale. Walt. fl. car. 140.

S. grandiflorum. Mich. fl. amer. 2. p. 41.

In woods, on the banks of rivers: Virginia to Georgia. b. June—Aug. v.v. A fine ornamental shrub, as the two following likewise are; flowers white.

pulverulentum. 2. S. foliis subsessilibus ovalibus s. obovatis obtusis subtus pulverulento-tomentosis, floribus axillaribus et subterno-terminalibus brevissime pedicellatis.—*Mich. fl. amer.* 2. p. 41.

S. lævigatum. Bot. mag. 921.

In woods of Virginia and Carolina. 1. June—Aug. v.v. Resembles the foregoing one. The figure referred to represents the present species, S. lævigatum or the following species has to my knowledge not yet been introduced into Europe.

glabrum.

S. foliis ovali-lanceolatis utrinque acutis glabris, pedunculis axillaribus unifloris solitariis binisve. — Cavan. diss. 6. t. 188. f. 1.

S. lævigatum. Willd. sp. pl. 2. p. 624.

S. americanum. Lam. encycl. 1. p. 82.

S. læve. Walt. fl. car. 140.

In the swamps of Virginia and Carolina. 1. July, Aug. v.v. Not above three or four feet high; the number of stamina is from six to ten.

#### 540. HOPEA. Gen. pl. 1222.

1. H. foliis oblongo-lanceolatis glaucis, floribus axillaribus aggregatis brevissime pedicellatis .- Linn. mant. 105. Symplocos tinctoria. Willd. sp. pl. 3. p. 1436.

Icon. Mich. arb. t.... Catesb. car. 1. p. 54.

In low woods of Virginia and Carolina. h. April, May. v. v. A small tree or shrub, variable in size, of which there is a variety with leaves pubescent underneath; flowers yellow, small, very sweet scented. The leaves dye a very fine yellow, and have a sweet taste; from which circumstance it is known by the inhabitants under the name of Sweet-leaf.

#### 550. GORDONIA. Gen. pl. 1144.

1. G. foliis lanceolato-oblongis glaberrimis nitidis coriaceis, Lasianthus. floribus longe pedunculatis, capsulis conoideis acuminatis.-Willd. sp. pl. 3. p. 840

Hypericum Lasianthus. Sp. pl. 1101.

Icon. Bot. mag. 668. Mich. arb. t.... Cavan. diss. 6. t. 161. Catesb. car. 1. t. 44. Pluk. amalth. t. 352. f. 3.

In cedar-swamps, near the sea-coast: Virginia to Florida. h. Aug-Sept. v.v. A beautiful small evergreen tree; flowers white, the size of a rose.

2. G. foliis obovato-lanceolatis subtus pubescentibus submembranaceis, floribus subsessilibus, capsulis sphæricis.— Willd. sp. pl. 3. p. 841.

G. Franklinia. Willd. sp. pl. 3. p. 841. Franklinia Alatamaha. Marsh. arb. 48.

Lacathea florida. Parad. lond. 56. cum icone.

Icon. Cavan. diss. t. 162. Mich. arb. t....

On the banks of the Alatamaha, near Fort Barrington, Georgia. b. Aug. Sept. v. v. This elegant tree, whose large white flowers with yellow anthers have a most agreeable appearance, though a native of a very southern latitude, is able to stand a considerable northern climate.

# 551. STUARTIA. Gen. pl. 1142 & 1143.

1. S. foliis ovatis acutis, floribus axillaribus subbinis, calycibus ovatis obtusis, petalis integris, stylis coalitis.

S. Malachodendron. Willd. sp. pl. 3. p. 840.

tinctoria.

pubescens.

virginica.

Stewartia virginica. Cavan. diss. 5. t. 159. f. 2.

Stewartia marilandica. Bot. rep. 397.

Icon. L'Herit, stirp. 1. t. 73. Catesb. car. 3. t. 13. Duham, arb. 2. t. 78.

In swamps in the lower counties of Virginia and Carolina. 1/2. July—Sept. v.v. From five to seven feet high, very ornamental; flowers large, white. There are a number of varieties, with more or less serrated leaves, more or less pubescent, &c.

pentagyna.

 S. foliis ovatis acuminatis, floribus axillaribus solitariis, calycibus lanceolatis calyculatis, petalis undulato-incisis, stylis distinctis.— Willd. sp. pl. 3. p. 840.

Malachodendron ovatum. Cavan. diss. 5. t. 158. f. 2. Icon. Exot. bot. 101. L'Herit. stirp. 1. t. 74. J. Mil-

ler. ic. 3.

In the mountains of Carolina and Georgia. 1/2. Aug. v. v. This beautiful shrub, whose large flowers are of a cream colour, deserves a place in the collection of every admirer of ornamental shrubs. It has generally been considered as a distinct genus; but I follow Dr. Smith's observations in Exotic Botany, considering it always unnecessary to split a small genus on slight differences, though the same differences might be sufficient reasons for establishing a distinction where the genus is numerous.

# 552. SIDA. Gen. pl. 1129.

spinosa.

1. S. caule patulo, axillis subspinosis, foliis longe petiolatis ovato-lanceolatis obsolete cordatis dentatis, pedunculis solitariis axillaribus, stipulis setaceis pedunculo longioribus, capsulis birostratis.—Willd. sp. pl. 3. p. 736.

Icon. Cavan. diss. 1. t. 1. f. 9. Pluk. alm. t. 9. f. 6. Among rubbish and on road-sides: Pensylvania to Carolina. O. July, Aug. v. v. Flowers yellow,

small.

hispida.

 S. hispido-pilosa; foliis lanceolatis serratis, pedunculis solitariis axillaribus longitudine petiolorum, calyce exteriore filiformi.

In sandy plains of Georgia. Lyon. 4. v. s. in Herb. Lyon. Flowers yellow.

 $\it rhombifolia.$ 

3. S. foliis oblongo-lanceolatis dentatis basi cuneiformibus integerrimis, pedunculis petiolis multo longioribus, capsulis bicornibus. Willd. sp. pl. 3. p. 740. Icon. Cavan. diss. 1. t. 3. f. 12. Dill. elth. t. 172. f. 212.

- In cultivated grounds and among rubbish: Virginia to Florida. O. h. June—Aug. v. v. Flowers yellow, small.
- 4. S. foliis oblongo-cordatis acuminatis crenatis summis sessilibus, pedunculis solitariis petiolo longioribus fructiferis deflexis, capsulis inflatis muticis undulato-crispis. Willd. sp. pl. 3. p. 747.

Icon. Cavan. diss. 1. t. 7. f. 1. Dill. elth. t. 5. f. 5.

- On the sea-coast of Carolina.  $\odot$ . July—Sept. v.v. Flowers white, small.
- 5. S. foliis subrotundo-cordatis acuminatis dentatis tomentosis, pedunculis solitariis petiolo brevioribus, capsulis biaristatis truncatis. *Willd. sp. pl. 3. p. 750*.

Icon. Schkuhr handb. 190.

- In cultivated grounds: Pensylvania to Carolina. O. July, Aug. v. v. A tall plant; flowers dark yellow.
- S. foliis cordatis 5-lobis glabris, lobis oblongis acuminatis dentatis, pedunculis multifloris, capsulis muticis acuminatis. Willd. sp. pl. 3. p. 766.

Napæa lævis. Syst. veg. 750.

Napæa hermaphrodita. Sp. pl. 965.

- Icon. Cavan. diss. 5. t. 132. f. 1. Herm. lugd b. t. 23.
  In shady rocky places: Pensylvania to Virginia; rare.
  4. July—Sept. v. v. From two to four feet high; flowers white.
- S. foliis 7-lobo-palmatis scabris, lobis lanceolatis incisodentatis, floribus dioicis corymbosis bracteatis. Willd. sp. pl. 3. p. 766.

Napæa scabra. Syst. veg. 750.

Napæa dioica. Sp. pl. 965.

Icon. Cavan. diss. 5. t. 132. f. 2. Ehret. pict. 7 & 8.
In stony ground, in the upper parts of Virginia. 4.
July, Aug. v. v. Flowers white.

8. S. foliis inferioribus triangulo-cordatis incisis, superioribus palmato-multifidis, corymbo terminali, calycibus hispidis. *Mich. fl. amer.* 2. p. 44.

In stony fields of Kentucky, Tennassee, &c. 4. July, Aug. v. s. Resembles in habit Malva Alcea.

### 553. CRISTARIA. Cavan. ic. 5. p. 10.

1. C. undique cano-tomentosa et pilis stellatis obsita; foliis 3—5-fidis, laciniis incisis acutis, racemis terminalibus, caule diffuso.

crispa.

Abutilon.

Napæa.

dioica.

alcæoides.

coccinea.

Malva coccinea. Fraser. catal.

On the dry prairies and extensive plains of the Missouri. 24. Aug. Sept. v. v.; v. s. in Herb. Lewis. Flowers scarlet.

Caulis teres, subpedalis, ramosus, ramis diffusis, tomentosis, pilis stellatis distinctis obsitis, uti tota planta. Folia alterna, petiolata, palmato-3—5-partita: laciniis subpinnatifido-incisis, lobis sinubusque acutis. Petioli teretes, longitudine folii. Stipulæ lineares, erectæ, marcescentes. Flores terminales, racemosi, coccinei, diametro pollicari. Calyæ 5-fidus, laciniis lanceolatis acutis. Petala 5. oblique cuneato-obcordata, subunguiculata, ad ungues fasciculato-villosa, calyce duplo longiora. Filamenta monadelpha, numerosa, in columnam brevem connata, superne libera, patentia. Styli circiter 10. Fructus orbiculatus.

The singularly stellated fasciculi of hair, placed on the close tomentum, and its bright scarlet flowers, make

this plant particularly interesting.

#### 554. MALVA. Gen. pl. 1134.

abutiloides.

1. M. foliis 5-angulari-lobatis tomentosis, pedunculis sub-4-floris bifidis axillaribus, capsulis polyspermis. Willd. sp. pl. 3. p. 780.

Icon. Jacq. hort. scheenbr. 3. t. 293. Cavan. diss. 2.

t. 16. f. 2.

On the sea-coast of Carolina. 4. June—Aug. v. v.

Flowers large, purple.

caroliniana.

M. foliis 5-lobis palmatisve inciso-dentatis, pedunculis
petiolo longioribus, petalis integris, fructu villoso,
caule prostrato. Willd. sp. pl. 3. p. 784.

Icon. Cavan. diss. 2. t. 15. f. 1. Dill. elth. t. 4. f. 4.

Schkuhr handb. 192.

In fields: Virginia and Carolina. ⊙. July—Sept. v. v. Flowers dark red.

rotundifolia.

3. M. caule prostrato, foliis cordato-orbiculatis obsolete 5-lobis, pedunculis fructiferis declinatis. Willd. sp. pl. 3. p. 786.

Icon. Fl. dan. 721. Cavan. diss. 2. t. 26. f. 3. Schkuhr

handb. 1.

In cultivated grounds: Pensylvania to Virginia. 4. June
—Sept. v. v. Flowers white, small.

#### 555. MALOPE. Gen. pl. 1136.

1. M. foliis oblongis obtusis integris crenatis supra glabris, malacoides pedunculis solitariis axillaribus. Willd. sp. pl. 3. p. 799.

Icon. Cavan. diss. 2. t. 27. f. 1. Sabb. hort. 1. t. 50.

Rob. ic. 189.

In Carolina. Walter. O. +. Though I doubt of this plant having been found in America, yet it is worth drawing the attention of the botanist to find out what Walter means by it.

#### 556. HIBISCUS. Gen. pl. 1139.

1. H. foliis ovatis acuminatis serratis subtrilobis sub-5-nervibus subtus incano-tomentosis, pedunculis floriferis, calycibus tomentosis, capsulis glabris.—Willd. sp. pl. 3. p. 806.

H. palustris. Walt. fl. car. 176.

Icon. Cavan. diss. 3. t. 65. f. 1. Bot. mag. 882. sub

H. palustri.

In swamps and salt-marshes: New York to Carolina; plentifully in the marshes round the Salt-lake, Onon-dago, New York. 4. Aug.—Oct. v.v. Flowers large, white, with a purple bottom, or sometimes pale purple.

2. H. foliis lato-ovatis obtuse-serratis subtrilobis 3-nervibus subtus tomentosis, pedunculis axillaribus petiolo lon-

gioribus. - Willd. sp. pl. 3. p. 808.

Icon. Cavan. diss. 3. t. 65. f. 2.

In swamps and marshes: Canada to Virginia. 4. Aug.

Oct. v.v. Flowers large, purple. This plant has been generally confounded with the former, but is very distinct.

3. H. foliis amplis coriaceis triangulato-cordatis trilobis grandiflorusutrinque eximie tomentosis subtus incanis, capsulis tomentoso-hirsutissimis subtruncatis.—Mich. fl. amer.

2. p. 46.

In salt-marshes of Georgia and Florida, and on the banks of the Mississippi. 24. Aug.—Oct. v. v. Flowers very large, flesh-coloured, with a red bottom; the fructifications yellow.

4. H. foliis ovatis acuminatis obtuse serratis utrinque incano-tomentosis, pedunculis axillaribus, calycibus tomentosis subæqualibus.—Willd. sp. pl. 3. p. 807.

incanus.

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H

Moscheutos

palustris.

Icon. Wendl. hort. herrenh. 4. t. 24. Bartr. ic. ined. in Mus. Banks.

In Carolina. 4. Sept. +. Flowers very large, sulphur-coloured.

esculentus.

5. H. foliis cordatis 5-lobis obtusiusculis dentatis, petiolis flore longioribus, calycibus exterioribus subdecaphyllis deciduis, interioribus longitudinaliter rumpentibus. Willd. sp. pl. 3. p. 827.

Icon. Cavan. diss. 3. t. 61. f. 2. Comm. hort. 1. t. 19. In cultivated grounds: Virginia and Carolina. O. June—Sept. v. v. Flowers yellow. It is generally cultivated by the name of Ohra for the sake of its unripe capsules, which give a fine dish for the table.

virginicus.

6. H. undique tomentosus, asper; foliis acuminatis inæqualiter dentatis, inferioribus cordatis indivisis, superioribus cordatis oblongis trilobis, pedunculis axillaribus et racemoso-terminalibus, floribus cernuis, pistillis nutantibus. Willd. sp. pl. 3. p. 831.

H. clypeatus. Walt. fl. car. 177.

Icon. Jacq. ic. rar. t. 142. Pluk. phyt. t. 6. f. 4.

In salt-marshes, on the sea-coast: New Jersey to Carolina. 21. Aug. Sept. v. v. Flowers small, rose-coloured.

militaris.

 H. glaberrimus; foliis 3-lobo-hastatis acuminatis serratis, corolla tubulato-campanulata, capsulis ovatis acuminatis glabris, seminibus holosericeis.—Willd. sp. pl. 3. p. 608.

H. lævis. Scop. del. insub. 3. t. 17.

H. virginicus. Walt. fl. car. 177.

H. hastatus. Mich. fl. amer. 2. p. 45.

H. riparius. Pers. syn. 2. p. 254.

Icon. Scop. del. insub. 3. t. 17. Cavan. diss. 6. t. 198. f. 2.

On the banks of rivers in Louisiana and the western parts of Pensylvania and Carolina. 4. Aug. Sept. v. v. Flowers purple, large.

speciosus.

8. H. glaberrimum; foliis palmato-5-partitis, laciniis lanceolatis acuminatis apice remote serratis, calycibus exterioribus decaphyllis, corolla patula, capsula glabra 5-gono-ovata.—Willd. sp. pl. 3. p. 822.

H. coccineus. Walt. fl. car. 177.

Icon. Bot. mag. 360. Wendl. hort. herrenh. t. 11.

On the banks of rivers of South Carolina and Florida. 4. Aug. Sept. v.v. A most elegant peren-

nial. When in high perfection, the stem will rise to more than eight feet, and the deep scarlet flowers grow to a larger size than any other Hibiscus I know.

9. H. caule petiolisque inermibus, foliis palmato-digitatis 7-partitis, laciniis linearibus, pedunculis hispidis, calyce exteriore 1-phyllo, interiore hinc lacero, capsula hirsutissima pyramidata.—Willd. sp. pl. 3. p. 825.

Icon. Cavan. diss. 3. t. 63. f. 2. Dill. elth. t. 156. f. 189. On the banks of the Mississippi. U. July—Sept. v. v. Flowers sulphur-yellow, with a purple bottom, very large when in rich soil.

10. H. caule scabro, foliis asperis basi truncatis circumscriptione subrotundis, superioribus palmatis, lobis superne dilatatis crenatis, floribus subsessilibus, calycibus hispidissimis exteriore furcellato. Mich. fl. amer. 2. p. 45. H. aculeatus. Walt. fl. car. 177.

Near the sea-coast, in marshes: Carolina to Florida. 4.

July—Sept. v. v. Flowers very handsome and large, bright yellow with a dark purple bottom.

Manihot.

scaber.

# XVI. DIADELPHIA.

#### I. PENTANDRIA.

557. PETALOSTEMUM. Pet. 4. staminibus interjecta: utraque in tubum fissum connata. Vexillum nullum, ejus loco quintum petalum. Legum. calyce tectum, 1-spermum.

#### II. HEXANDRIA.

558. CORYDALIS. Cal. diphyllus. Cor. ringens. Filam. 2. membranacea, singula Antheris 3. Caps. siliquosa, polysperma.

559. FUMARIA. Cal. diphyllus. Cor. irregularis, basi calcarata. Filan. 2. singula Antheris 3. Caps. 1-

locularis, evalvis, 1-sperma.

#### III. OCTANDRIA.

560. POLYGALA. Cal. 5. phyllus: foliolis duobus alæformibus, coloratis. Caps. obcordata, 2-locularis, 2-valvis.

#### IV. DECANDRIA.

\* Stamina omnia connexa.

 AMORPHA. Cal. campanulatus, 5-fidus. Cor. vexillum ovatum, concavum. Alæ Carinaque nullæ. Legum. 2-spermum, falcatum.

 ERYTHRINA. Cal. 2-lobatus. Cor. vexillum longissimum, lanceolatum. Legumen torulosum.

563. LUPINUS. Cal. 2-labiatus. Anth. 5. oblongæ, 5.

subrotundæ. Legum. coriaceum.

564. CROTALARIA. Cor. vexillum cordatum, magnum, carina acuminata. Filam. connata cum fissura dorsali. Legum. pedicellatum, turgidum.

\*\* Stigma pubescens. (Nec priorum notæ.)

565. PHASEOLUS. Carina cum Staminibus Styloque spiraliter torta.

566. DOLICHOS. Vexilli basis callis 2. parallelis oblongis,

alas subtus comprimentibus.

567. PISUM. Cal. laciniæ foliaceæ æquales. Vexillum plicas 2. protrudens. Stylus compressus, carinatus, supra villosus. Legum. ad suturas nudum.
568. LATHYRUS. Cal. laciniæ superiores 2. breviores.

Stylus planus, supra villosus, superne latior.

569. VICIA. Cal. superne emarginatus, 2-dentatus, inferne dentibus 3. rectis longis. Vexillum emarginatum. Stigma latere inferiore transverse barbatum.

## \*\*\* Legumen subbiloculare. (Nec priorum.)

570. ASTRAGALUS. Carina obtusa. Legum. biloculare aut subbiloculare, sutura inferiore introflexa.

571. OXYTROPIS. Carina in mucronem superne desinens. Legum. biloculare aut subbiloculare, sutura

superiore introflexa.

572. APIOS. Cal. campanulatus, bilabiatus. Carina vexillum reflectens. Appendix: tubulus ex centro disci, denticulatus, vaginans basin stipitis germini. Legumen coriaceum, biloculare, dissepimento seminibus interceptum.

# \*\*\*\* Legumina submonosperma. (Nec priorum.)

573. DALEA. Cal. glandulosus, subsemi-5-fidus. Alæ et Carina columnæ staminum adnatæ. Vexill. breve. Stam. omnia connata. Legum. 1-spermum, calyce brevius.

574. PSORALEA. Cal. longitudine leguminis. Stam. diadelpha. Legum. 1-spermum, subrostratum, evalve,

575. MELILOTUS. Cal. tubulosus, 5-dentatus. Carina simplex, alis et vexillo brevior. Legum, calyce longius, rugosum. Flores racemosi.

576. TRIFOLIUM. Legum. calyce tectum, evalve, 2—
4-spermum. Flores subcapitati.

577. LUPINASTER. Cal. campanulatus, 5-dentatus, dentibus setaceis, uno sub carina, Stigma uncinatum. Legum. enode, teres, polyspermum.

578. STYLOSANTHES. Cal. tubulosus, longissimus, corollifer. Germen sub corolla. Lomentum 1-2-arti-

culatum, hamatum.

579. GLYCYRRHIZA. Cal. 2-labiatus, basi gibbus. Cor. vexillum alas et carinam includens. Legum. ovatum,

compressum, hispidum, 2-4-spermum.

580. LESPEDEZA. Cal. 5-partitus, laciniis subæqualibus. Cor. carina transverse obtusa. Legum. lenticulare, inerme, 1-spermum.

\*\*\*\*\* Legumen in articulos secedens. (Nec priorum.)

581. HEDYSARUM. Cal. 5-fidus. Cor. carina transverse obtusa. Lomentum pluri-articulatum: articulis 1-spermis, compressis, utplurimum hispidis.

582. ZORNIA. Cal. campanulatus, 2-labiatus. Vexillum cordatum, revolutum. Antheræ alternæ oblongæ, alternæ globosæ. Lomentum articulatum, hispidum.

583. ÆSCHYNOMENE. Cal. bilabiatus. Lomentum compressum, sutura altera recta, altera lobata, articulis truncatis, 1-spermis.

584. SESBANIA. Cal. dentibus subæqualibus.

elongatum, subcylindricum, 2-valve.

\*\*\*\*\* Legumen uniloculare polyspermum. (Nec priorum.)

585. GLYCINE. Cal. bilabiatus: dente labii inferioris longiore. Cor. carina apice vexillum reflectens. Sty-

lus incurvus. Legum. oblongum, compressum. 586. GALACTIA. Cal. 4-dentatus, 2-bracteatus. Petala omnia oblonga, vexillo latiore incumbente. Stigm.

obtusum. Legum. teres. Sem. subrotunda.

587. CLITORIA. Cal. tubuloso-campanulatus. Cor. resupinata: vexillo maximo, patente, alas obumbrante. Legum. lineare, longissimum, acuminatum.

588. ROBINIA. Cal. 4-fidus, lacinia superiore bipartita. Vexillum reflexo-patens, subrotundum. Legum. gib-

bum, elongatum.

589. INDIGOFERA. Cal. patens. Cor. carina utrinque calcari subulato patulo. Legum. lineare, parvulum, teres, subquadrangulare.

590. TEPHROSIA. Cal. dentibus subulatis, subæqualibus. Stam. monadelpha. Legum. compressum,

subcoriaceum.

591. LOTUS. Cal. tubulosus. Alæ sursum longitudinaliter conniventes. Filam. cuneiformia. Legum. cylindricum, strictum.

592. MEDICAGO. Carina corollæ a vexillo deflectens.

Legum. compressum, cochleatum.

#### I. PENTANDRIA.

557. PETALOSTEMUM. Mich. fl. amer. 2. p. 48.

Dalea. Juss. gen. pl. 392.

 P. spica cylindrica pedunculata, bracteis flore longioribus, calycibus glabris, foliis trijugis lanceolatis.—Mich. fl. amer. 2. p. 49. candidum.

Dalea candida. Willd. sp. pl. 3. p. 1337.

Icon. Mich. l. c. t. 37. f. 1.

In Tennassee, Illinois, and on the banks of the Missouri. 4. July, Aug. v. s. in Herb. Lewis. &c. Flowers white.

P. spica cylindrica pedunculata, bracteis subulatis longitudine calycis, bracteolis setaceis persistentibus, calycibus glabris, foliolis lanceolatis.—Mich. fl. amer. 2. p. 49.

carneum.

In pine-barrens of Georgia and Florida. 4. July, Aug. v. s. in Herb. Enslen. &c.

3. P. spica cylindrica pedunculata, bracteis calycem subæquantibus, bracteolis spathulatis deciduis, calycibus sericeis, foliis bijugis linearibus.—*Mich. fl. amer.* 2. p. 50. violaceum.

Dalea violacea. Willd. sp. pl. 3. p. 1337.

Icon. Mich. l. c. t. 37. f. 2.

In Tennassee, Illinois, and on the banks of the Missouri.

4. July—Sept. v. v. A beautiful plant; the close spikes are of a delicate rose-purple.

4. P. spicis cylindricis pedunculatis terminalibus, bracteis calyce brevioribus, calycibus villosis, foliis sub-10-jugis ellipticis retusis mucronatis.

alopecuroideum.

Dalea alopecuroides. Willd. sp. pl. 3. p. 1336.

In Georgia and Florida. 4. July, Aug. v. s. in Herb. Enslen. Flowers pale blue.

5. P. capitulis squamoso-involucratis, pedunculis paniculato-corymbosis, calycibus plumosis, foliolis linearibus muticis.—Mich. ft. amer. 3. p. 50.

Dalea Kuhnistera. Willd. sp. pl. 3. p. 1337. Kuhnistera carolinensis. Lam. encycl. 3. p. 371. Kuhniæ affinis pinuata. Walt. fl. car. 103.

In pine-barrens of Carolina and Georgia. 4. June-

Aug. v. v. Flowers white. This singular plant appears, at first sight, to belong to the class Syngenesia, and certainly is the connecting link between that class and the present.

# II. HEXANDRIA.

558. CORYDALIS. Vent. choix de pl. 19. Fumaria. Gen. pl. 1154.

\* Corollis bicalcaratis. Perizomanthi.

Cucullaria.

C. scapo nudo, racemo simplici secundo, nectariis divaricatis longitudine corollæ, stylo incluso, radice bulbosa.

—Pers. syn. 2. p. 269.

Fumaria Cucullaria. Willd. sp. pl. 3. p. 857.

Icon. Bot. mag. 1127. Rob. ic. 222. Pluk. alm. t. 90.

f. 3.

On the side of shady hills, in rich vegetable mould, among rocks: Canada to Virginia. 21. May. v. v. Flowers white, with a yellow mouth. This singularly constructed flower is known among the inhabitants by the name of Breeches-flower or Yellow-breeches; and as I consider that all those species with two spurs or nectaries might form, with propriety, a good genus, I have given it the name of Perizomanthus.

formosa.

 C. scapo nudo, racemo subcomposito nutante multifloro, nectariis brevissimis incurvis, stylo porrecto, laciniis foliorum oblongis inciso-pinnatifidis, radice tuberosa.

Icon. Bot. rep. 393. Bot. mag. 1335. sub Fumaria. In Canada, and on the highest peaks of the Virginia and Carolina mountains, in the cliffs of shady rocks. 4. May—July. v.v. Flowers a lively bright red. This elegant perennial deserves a place in every collection. The Canada plant is somewhat different in aspect from the Virginian, but not sufficiently distinct to make it a species.

tenuifolia.

 C. scapo nudo, racemo simplici nutante paucifloro, nectariis brevissimis incurvis, stylo longe exerto, foliis tenuissime laciniatis, radice tuberosa.

On the north-west coast. 4. June. v. s. in Herb.

#### DIADELPHIA HEXANDRIA. Corydalis.

Lambert. specimen Pallasianum. Flowers of nearly the same shape and colour as the foregoing species.

4. C. caule scandente, foliis cirrhosis, racemis axillaribus corymbosis cernuis, corollis monopetalis basi bigibbis.

—Pers. syn. 2. p. 269.

fungosa.

Fumaria fungosa. Willd. sp. pl. 3. p. 857.

Fumaria recta. Mich. fl. amer. 2. p. 51.

In moist and shady places, in the beech-woods of Canada and Pensylvania. J. June—Sept. v. v. A delicate twining plant; flowers pale red and in great abundance.

#### \*\* Corollis unicalcaratis.

 C. caule ramoso erecto, foliis glaucis, caulinis biternatis, racemis subcorymbosis, bracteis minutis, siliquis linearibus pedunculo triplo longioribus.—Pers. syn. 2. p. 269. glauca.

Fumaria sempervirens. Willd. sp. pl. 3. p. 863.

Icon. Bot. mag. 179. Corn. canad. 57.

In the cliffs of rocks, in Canada, and on the Allegany mountains. ①. J. June—Aug. v. v. Flowers very handsomely variegated wilh yellow, red, and green.

 C. caule ramoso diffuso, foliis bipinnatis, foliolis partitis lineari-lanceolatis utrinque acutis, racemis secundis, bracteis lato-lanceolatis subdenticulatis, siliquis teretibus turgidis pedunculo duplo longioribus.— Willd. enum. 740.

aurea.

On shady rocks: Pensylvania to Virginia. 
On May—July. v. v. Flowers bright yellow; the leaves and the size of the flowers resemble those of the preceding species.

# 559. FUMARIA. Gen. pl. 1154.

1. F. caule ramoso diffuso, foliis supradecompositis, foliolis cuneiformi-lanceolatis incisis. — Willd. sp. pl. 3. p. 867.

Icon. Fl. dan. 940. Engl. bot. 589.

In cultivated grounds: Pensylvania to Virginia; rare.

O. May—Aug. v. v. Flowers small, red, mixed with green.

officinalis.

# III. OCTANDRIA.

# 560. POLYGALA. Gen. pl. 1154.

- \* Cristatæ. Floribus appendice penicilliformi.
- incarnata. 1. P. caule simpliciusculo erecto, foliis sparsis subulatis. spicis ovali-oblongis, corollis tubo gracili elongato.-

Willd. sp. pl. 3. p. 871. In low sandy fields and on the edge of rivulets: Jersey

to Carolina. O. June, July. v. v. A delicate little plant; flowers of a bright flesh-colour.

2. P. pubescens; caule simplici erecto, foliis angusto-lanceolatis acutis, racemo terminali, bracteis subulatis solitariis caducis, alis calycinis nervoso-venosis truncato-rotundatis corolla longioribus.

P. rubella. Willd. sp. pl. 3. p. 875?

In woods and on dry shady hills: Pensylvania to Georgia. 4. June, July. v. v. Flowers pale red. This species approaches near to P. vulgaris. Whether Willdenow's plant is the same or not, I am not able to determine; but I strongly suspect he had but an imperfect specimen, in which the very minute bracteæ had disappeared. If his specimen has come from Dr. Muhlenberg, it certainly is the same plant.

paucifolia.

rubella.

3. P. pumila, grandiflora; caulibus simplicissimis erectis inferne nudis, foliis ovatis acutis glabris, floribus terminalibus subternis.—Willd. sp. pl. 3. p. 880.

In sphagnous swamps and bogs: Pensylvania to Virginia; principally on the mountains. 4. May-Aug. v. v. Not above three or four inches high; flowers the largest of those mentioned here, about the size of P. myrtifolia, of a fine pale red colour.

#### \*\* Imberbes.

uniflora.

4. P. pumila; caulibus simplicissimis erectis inferne nudiusculis, foliis paucis lato-ovatis in petiolum angustatis, floribus solitariis sparsis pedicellatis nutantibus.—Mich. fl. amer. 2. p. 53.

On the banks of lake Ontario. Michaux. 4. +.

Senega.

5. P. caulibus erectis simplicissimis foliosis, foliis alternis lanceolatis, spica terminali filiformi, floribus alternis. Willd. sp. pl. 3. p. 894.

Icon. Bot. mag. 1051. Mill. dict. 3. t. 5. Amoen. acad. 2.

a. P. foliis lanceolatis, vel ovalibus, spica confertiuscula, floribus albidis subsessilibus.—Mich. fl. amer. 2. p. 53. albida. rosea.

B. P. glabella vel pubescens; foliis lineari-lanceolatis, spica laxiuscula alterniflora, floribus roseis. - Mich. fl.

amer. 2. p. 53.

On the side of hills and in dry woods: a. Canada and throughout the Allegany mountains. B. in Carolina and Georgia. 4. June-Aug. v.v. This is the famous Seneca Snake-root, formerly so celebrated for the bite of rattle-snakes; but other more efficacious remedies have supplanted it. Vid. Prenanthes and Liatris.

lutea.

6. P. caule simplici vel ramoso; foliis radicalibus infimisque spathulatis, cæteris lanceolatis, spica cylindraceo-capitata confertiflora pedunculata.—Willd. sp. pl. 3. p. 894.

Icon. Pluk. amalth. t. 438. f. 6.

a. P. caule subvirgatim elatiore.

elatior. nana.

**B.** P. subacaulis, foliis omnibus spathulatis, capitulo majore. In wet woods and bogs: New Jersey to Florida.  $\beta$ . in low meadows of Carolina. O. July, Aug. v. v. A fine species; flowers of a golden yellow; the var.  $\beta$ . does not grow above three or four inches high.

viridescens.

7. P. caule erecto simplicissimo, foliis lineari-lanceolatis obtusiusculis, capitulo terminali globoso-capitato.-Willd. sp. pl. 3. p. 895.

In dry woods: Pensylvania to Carolina. O. July, Aug. v.v. Flowers greenish-white, with some red. In

general habit it resembles P. incarnata.

setacea.

8. P. caule setaceo subaphyllo simplici, summitate subramoso, foliis parvis setaceis sparsis, floribus minutis dense spicatis. - Mich. fl. amer. 2. p. 52.

In Carolina and Georgia. O. July, Aug. v.s. in Herb. Lyon.

sanguinea.

9. P. caule erecto summitate corymboso-ramoso, foliis alternis linearibus, spicis capitatis, pedunculis squarrosis.—Willd. sp. pl. 3. p. 896.

Icon. Pluk. mant. t. 438. f. 5.

In woods on the side of hills: New England to Caro-O. July, Aug. v. v. Flowers rose-coloured.

10. P. caule a basi ramoso, foliis alternis ellipticis obtusis basi attenuatis, spicis terminalibus oblongis, floribus alterpolygama.

nis pedunculatis, spicis inferioribus depressis apetalis.
— Walt. fl. car. 179.

In the pine-barrens of Carolina. O. July, Aug. v. s. Calyx greenish-white, with pale yellow petals.

verticillata.

11. P. caule erecto ramoso, foliis verticillatis linearibus, spicis setaceis pedunculatis, floribus distincte alternis approximatis.—Willd. sp. pl. 3. p. 897.

Icon. Pluk. mant. t. 438. f. 4.

On the sides of dry hills and in pine-woods: New York to Carolina. 

. June—Aug. 
v. v. Flowers very small, white, or sometimes pale red.

cruciata.

 P. caule erecto ramoso alato-anguloso, foliis quaternis lineari-lanceolatis, capitulis spicatis sessilibus.—Willd. sp. pl. 3. p. 897.

In wet places, on the edge of bogs and rivulets; Canada to Carolina. 

O. July—Sept. v.v. Flowers red

mixed with green.

# IV. DECANDRIA.

## 561. AMORPHA. Gen. pl. 1170.

fruticosa.

1. A. glabra, subarborescens; foliis petiolatis, spicis aggregatis elongatis, calycibus nudiusculis pedicellatis, dentibus 4. obtusis, unico acuminato, leguminibus oligospermis.—Willd. sp. pl. 3. p. 970.

Icon. Schmidt arl. 30. Schkuhr handb. 197. Hort, cliff. t. 19. Mill. ic. 27. Duham. arb. t. 46.

vulgaris. emarginata. angustifolia.

α. A. foliis mucronatis, calycibus glabris.
β. A. foliis emarginatis, calycibus canis.
γ. A. foliis lineari-ellipticis basi subacutis.

On the banks of rivers: Carolina and Florida.  $\gamma$ . June, July. v. v. Var.  $\gamma$ . v. s. in Herb. Lewis. A shrub from nine to twelve feet high. Flowers of a very fine blue, in close and long spikes. It is generally known by the name of Wild Indigo. The leaves, as in all the following species, are beset with glands, which are transparent.

microphylla.

2. A. glabriuscula, pumila; foliis brevissime petiolatis utrinque obtusis, spicis solitariis abbreviatis, calycibus nudiusculis pedicellatis, dentibus omnibus acuminatis, leguminibus monospermis.

A. nana. Fraser. catal. 1813.

On the banks of the Missouri. L. July, Aug. v. s. in Herb. Lewis. From one to two feet high; flowers purple and fragrant. A very elegant little shrub.

3. A. humilis, frutescens; foliis brevissime petiolatis sine mucrone utrinque obtusis glabriusculis, spicis paniculatis elongatis pubescentibus, calycibus subsessilibus, dentibus omnibus acuminatis.—Willd. sp. pl. 3. p. 970.

pubescens.

A. herbacea. Walt. fl. car. 179.

A. pumila. Mich. fl. amer. 2. p. 64.

In sandy dry fields: Carolina and Georgia. 1/2. June, July. v. v. From two to three feet high; flowers a fine blue, smaller than No. 1.

4. A. undique cano-tomentosa, humilis; foliolis approximatis subsessilibus ovato-ellipticis acutis mucronatis, spicis paniculatis cano-tomentosis, calycibus sessilibus, dentibus omnibus acuminatis.

canescens.

On the banks of the Missouri and Mississippi. 1. July, Aug. v. v. Resembles the foregoing one very much; flowers of a more beautiful blue.

#### 562. ERYTHRINA. Gen. pl. 1163.

1. E. pumila; foliis ternatis rhombeis glabris, spicis longissimis, caule herbaceo inermi.—Willd. sp. pl. 3.

herbacea.

Icon. Bot. mag. 877. Trew. ehret. t. 58. Catesb. car. 49. Dill. elth. t. 90. f. 106.

In sandy woods and fields: Carolina and Florida. 21.

June, July. v. v. A beautiful perennial; flowers scarlet.

## 563. LUPINUS. Gen. pl. 1176.

 L. perennis, repens; caule foliisque glabriusculis, foliis digitatis: foliolis (8-9) lanceolatis obtusiusculis, calycibus alternis inappendiculatis: labio superiore emarginato; inferiore integro.—Willd. sp. pl. 3. p. 1022. perennis.

Icon. Bot. mag. 202. Mill. dict. t. 170. f. 1. On dry hills, in gravelly soil: Canada to Florida. 24.

In dry hills, in gravelly soil: Canada to Florida. 21.

May—July. v. v. Flowers blue, purple, and sometimes white.

2. L. perennis; caule foliisque hirsutis, foliis digitatis: nootkatensis. foliolis (7-8) lanceolatis obtusis, calycibus verticillatis

inappendiculatis: labio superiore emarginato, inferiore integro.—Donn. catal. hort. cantab.

Icon. Bot. mag. 1311.

On the north-west coast. Menzies. 4. June, July. v. s. in Herb. Lambert. This stately perennial approaches near to the foregoing one in its general character, but the flowers are larger and beautifully variegated. In the Herbarium of A. B. Lambert, Esq. is a specimen from Professor Rudolph, of St. Petersburg, collected in Unalashka, under the name of L. regius, decidedly the same with the present species, the name of which sufficiently shows the grandeur of this plant in its native state.

sericeus.

3. L. perennis; caule foliisque sericeo-tomentosis, foliis digitatis: foliolis (7-8) lanceolatis acutis utrinque sericeis, calycibus subverticillatis inappendiculatis: labio superiore inciso; inferiore integro.

On the banks of the Kooskoosky. M. Lewis. 4. July. v. s. in Herb. Lewis. Flowers pale purple, or rose-

coloured.

argenteus.

4. L. perennis; foliis digitatis: foliolis (5-7) lineari-lanceolatis acutis supra glabris subtus argenteo-sericeis, calycibus alternis inappendiculatis: labio superiore obtuso; inferiore integro.

On the banks of the Kooskoosky. M. Lewis. 4. June, July. v. s. in Herb. Lambert. Flowers small,

cream-coloured.

pusillus.

5. L. biennis, pusillus, undique pilis longis albidis hirsutissimus; foliis digitatis: foliolis (7) lineari-ellipticis supra glabris, calycibus alternis inappendiculatis: labio superiore bipartito; inferiore integro, leguminibus subdispermis.

On the banks of the Missouri. J. June. v. s. in Herb. Lewis. Flowers small, a fine blue mixed with some

red.

villosus.

6. L. perennis, villosissimus; foliis simplicibus oblongis, spicis elongatis, calycibus alternis inappendiculatis: labio superiore bifido; inferiore integro elongato.— Mich. fl. amer. 2. p. 56.

L. pilosus. Walt. fl. car. 180.

In dry sandy fields: Carolina and Florida. 4. June—Aug. v. v. A beautiful perennial, but very shy of cultivation; flowers very variable in colour: white, rose red, and purple.

#### 564. CROTALARIA. Gen. pl. 1172.

1. C. hirsuta, erecta, ramosa; foliis simplicibus oblongolanceolatis, stipulis lanceolatis acuminatis decurrentibus, racemis oppositifoliis subtrifloris, corollis calyce minoribus.—Willd. sp. pl. 3. p. 972.

C. sagittalis β. oblonga. Mich. ft. amer. 2. p. 55.

In pine-barrens: Virginia to Georgia.  $\odot$ . July. v.v. Flowers, as all the following, yellow.

C. hirsuta, erecta, ramosa; foliis simplicibus lineari-lanceolatis, stipulis superioribus decurrentibus brevissime bidentatis, racemis oppositifoliis, corollis calyce minoribus.—Willd. sp. pl. 3. p. 973.

C. sagittalis a. linearis. Mich. fl. amer. 2. p. 55.

In sandy fields: New York to Carolina. . June, July.

3. C. hirsuta, diffusa, ramosa; foliis simplicibus petiolatis subrotundo-ovalibus, stipulis summis vix decurrentibus brevissimis, racemis oppositifoliis elongatis, corollis calycem æquantibus.

C. sagittalis y. ovalis. Mich. fl. amer. 2. p. 55.

Anonymos rotundifolia. Walt. fl. car. 181.

In pine-barrens of Carolina and Georgia. . June, July. v. s. in Herb. Enslen.

 C. glabra, erecta, simplex; foliis lanceolato-oblongis, stipulis lanceolatis acuminatis decurrentibus, racemis oppositifoliis subtrifloris.

C. sagittalis glabra, longioribus foliis, americana. Pluk.

alm. 122. t. 277. f. 2.

In pine-woods of Virginia and Carolina. O. July. v. v.

# 565. PHASEOLUS. Gen. pl. 1180.

1. P. volubilis, totus pubescens; foliolis lato-ovatis impari subcordato, racemis geminatis folio longioribus, pedunculis geminatis, bracteis obsoletis, leguminibus pendulis.—Willd. sp. pl. 3. p. 1031. Walt. fl. car.

P. paniculata. Mich. fl. amer. 2. p. 60.

Dolichos polystachyos. Willd. sp. pl. 3. p. 1049.

On the side of fertile hills, near the banks of rivers, among rocks: Pensylvania to Carolina. 4. July, Aug. v. v.; v. s. in Herb. Gronov. Flowers purple, in great abundance, which gives this plant a very ornamental appearance.

sagittalis.

parviflora.

ovalis.

lævigata.

perennis.

vexillatus.

2. P. volubilis, pubescens; pedunculis petiolo crassioribus capitatis, alis subfalcatis difformibus, leguminibus linearibus strictis. Willd. sp. pl. 3. p. 1032. Icon. Jacq. hort. t. 102. Dill. elth. t. 234. f. 302.

On the sea-coast of Carolina and Georgia. O. July,

Aug. v. v. Flowers large, purple.

- helvolus.
- 3. P. volubilis, perennis, hirtellus; foliolis oblongo-ovalibus subdeltoideis obtusiusculis, capitulis longe pedunculatis, vexillis brevibus, alis expansis maximis, leguminibus tereti-linearibus.—Willd. sp. pl. 3. p. 1032.

Glycine umbellata. Willd. sp. pl. 3. p. 1058.

Icon. Dill. elth. t. 233. f. 300.

In dry gravelly soil, in old fields and pastures: New York to Carolina. v. v. Flowers of a rose-colour, carina purple.

trilobus.

4. P. volubilis, pubescens; foliolis inferioribus rhomboideoovalibus, superioribus trilobatis, capitulis longe pedunculatis, leguminibus linearibus. Mich. fl. amer. 2. p. 60.

P. vexillatus. Walt. fl. car. 182.

Glycine angulosa. Willd. sp. pl. 3. p. 1056.

On banks of rivers in gravelly soil: Pensylvania to Carolina. O. June, July. v. v. Flowers resembling the foregoing species.

# 566. DOLICHOS. Gen. pl. 1181.

luteolus.

1. D. volubilis, pubescens; foliolis ovatis acuminatis, pedunculis folio longioribus, spicis brevibus subcapitatis, vexillo lato reflexo, alis rhomboideis.-Willd. sp. pl. 3. p. 1038.

Icon. Jacq. hort. t. 90.

Enslen. O. June, July. v. v. In rice fields of Georgia. Flowers bright yellow.

# 567. PISUM. Gen. pl. 1184.

maritimum.

1. P. petiolis supra planiusculis, caule angulato, stipulis sagittatis, pedunculis multifloris. Willd. sp. pl. 3. p. 1071.

Icon. Fl. dan. 338. Engl. bot. 1046.

In rocky and sandy situations, near the sea-coast: Canada to New York. 4. July, Aug. v. v. Flowers large, handsome, purple and blue.

#### 568. LATHYRUS. Gen. pl. 1186.

1. L. caule alato, stipulis semisagittatis lanceolatis, foliolis sex lineari-lanceolatis acutis, pedunculis sub-3-floris. Willd. sp. pl. 3. p. 1090.

palustris

Icon. Fl. dan. 399. Engl. bot. 169.

In low grounds of Canada. Michaux. 4. July, Aug. v. s. Flowers pale purple, of middle size.

2. L. caule nudo tetragono, stipulis semisagittatis lanceolatis acuminatis, foliolis quatuor oblongo-lanceolatis acutis mucronatis venoso-reticulatis, pedunculis folio longioribus sub-3-floris.—Willd. sp. pl. 3. p. 1091.

myrtifolius.

In salt-marshes: Pensylvania and New York; particularly plenty about Lake Onondago. 4. July, Aug. v.v. Resembles the foregoing species; flowers smaller, purple and rose-coloured.

venosus.

3. L. caule nudo tetragono, stipulis semisagittatis ovatis acuminatis, foliolis numerosis subalternis ovatis obtusis mucronatis venosis, pedunculis folio brevioribus 5-10-floris. — Willd. sp. pl. 3. p. 1092.

In low meadows: Pensylvania. 4. July, Aug. v. s. Flowers purple.

4. L. caule tetragono, stipulis semisagittatis linearibus, foliis 5-jugis: foliolis oblongo-ellipticis mucronatis, pedunculis 3-4-floris.

decaphyllus.

On the banks of the Missouri. 4. v. s. Flowers purple, large; pods large.

# 569. VICIA. Gen. pl. 1187.

1. V. pedunculis solitariis unifloris capillaribus, stipulis semisagittatis integerrimis, foliolis subsenis lineari-lanceolatis obtusiusculis, leguminibus parvis oblongis glabris.—Willd. sp. pl. 3. p. 1106.

pusilla.

In low grassy grounds: Pensylvania to Virginia. O. July, Aug. v. v. Flowers exceeding small, white, with a tinge of red.

2. V. floribus binis subsessilibus, stipulis dentatis macula notatis, foliolis oblongo-ovatis retusis mucronatis, leguminibus erectis subtereti-linearibus glabris. - Willd. sp. pl. 3. p. 1104? Walt. fl. car. 183.

sativa.

In Lower Carolina. O. July, Aug. v. s. Flowers purplish-blue.

3. V. pedunculis submultifloris folio brevioribus, stipulis americana. VOL. II.

semisagittatis dentatis, foliolis 8—12. elliptico-lanceolatis obtusis glabris.—Willd. sp. pl. 3. p. 1096.

In Pensylvania. Muhlenberg. 4. +. Flowers the size of V. sylvatica, to which it bears a great resemblance.

Cracca.

4. V. spicis multifloris retrorsum imbricatis folio longioribus, stipulis semisagittatis lineari-subulatis integerrimis, foliolis numerosis lanceolato-oblongis pubescentibus.—Willd. sp. pl. 3. p. 1098.

Icon. Fl. dan. 804. Mart. fl. rust. 117.

In woods and meadows: Canada to Virginia. 4. July, Aug. v. v. Flowers pale blue.

caroliniana.

5. V. pedunculis multifloris, floribus distantibus, stipulis ovato-lanceolatis integerrimis, foliolis 8—10. elliptico-lanceolatis glabriusculis, caule glabro.— Willd. sp. pl. 3. p. 1094. Walt. fl. car. 182.

V. parviflora. Mich. fl. amer. 2. p. 69.

In the mountains from Pensylvania to Carolina. 4. July, Aug. v. v. Resembles the foregoing species; but the flowers are white, with a vexillum black on the tip, and a great deal smaller.

#### 570. ASTRAGALUS. Gen. pl. 1208.

carolinianus.

1. A. caulescens, erectus; foliolis (41) oblongis subtus pubescentibus, spicis pedunculatis, bracteis lanceolatis pedunculi longitudine, leguminibus ovatis tumidis rostratis. Willd. sp. pl. 3. p. 1273.

Icon. Dill. elth. t. 39. f. 45.

In the mountains of Virginia and Carolina. 4. June, July. v. v. Flowers pale yellow.

canadensis.

 A. caulescens, diffusus; foliolis (21) utrinque glabris, leguminibus subcylindricis mucronatis.—Willd. sp. pl. 3. p. 1274.

Icon. Dodart. mem. t. 65. Rob. ic. 314.

In the mountains: Canada to Carolina. 4. July, Aug. v.v. Flowers yellow.

glaber.

3. A. caulescens, glaber; foliolis lanceolato-oblongis subciliatis, spicis longe pedunculatis, floribus laxiusculis, leguminibus distantibus incurvis teretibus glabris.—

Mich. fl. amer. 3. p. 66.

In the sands of Georgia. Michaux. 4. +. Flowers

white.

alpinus. 4. A. caulescens, procumbens; floribus pendulis racemosis,

leguminibus utrinque acutis pilosis. Willd. sp. pl. 3. p. 1297.

Icon. Fl. dan. 51. Pall. astrag. t. 32.

In Labrador. Colmaster. 4. July, Aug. v. s. in Herb. Dickson. Flowers pale purple.

 A. caulescens, procumbens; foliolis ovatis pubescentibus, spicis pedunculatis, leguminibus secundis rectis utrinque acuminatis pendulis.—Mich. fl. amer. 2. p. 67.

que acuminatis pendulis,—Mich. fl. amer. 2. p. 67. In the north of Canada. Michaux. Labrador. Colmaster. 4. July, Aug. v. s. Flowers dark purple.

 A. caulescens, glaber; foliolis linearibus alternis, spicis pedunculatis folio longioribus, bracteis minutis, leguminibus subteretibus rostratis.

On the banks of the Missouri. M. Lewis. 4. Aug. v. s. in Herb. Lewis. Flowers small, yellowish-white.

A. subacaulis, pilosissimus; foliolis ovalibus supra glabris, pedunculis folia subæquantibus, spicis paucifloris, leguminibus incano-villosissimis assurgentibus oblongis.—Mich. fl. amer. 2. p. 67.

In sandy pine-woods of Georgia. 4. July, Aug. v. s. in Herb. Enslen.

# 571. OXYTROPIS. Decand. astrag. p. 24.

 O. acaulis; foliolis obovato-lanceolatis sericeo-argenteis, scapis folia æquantibus, floribus capitatis, bracteis lanceolatis longitudine calycis sericei.—Pers. syn. 2. p. 331.

Astragalus argentatus. Willd. sp. pl. 3. p. 1310.

Icon. Pall. astrag. t. 48.

On the banks of Clarck's river. M. Lewis. 4. July. v. s. in Herb. Lewis.

#### 572. APIOS.

# Glycine. Gen. pl. 1182.

 A. volubilis, glabra; radice tuberosa, foliis impari-pinnatis: foliolis 5—7. ovato-lanceolatis superne angustatis, spicis confertis folio brevioribus.

Glycine Apios. Willd. sp. pl. 3. p. 1067.

Icon. Bot. mag. 1198. Schkuhr handb. 198. Rob. ic. 317. In hedges and on mountain meadows: Pensylvania to Carolina. 4. July. v. v. Flowers dark brown, sweet-scented; roots eatable, growing sometimes to an enormously large size.

secundus.

tenellus,

villosus.

argentata.

tuberosa.

frutescens.

2. A. volubilis; foliis impari-pinnatis novenis ovatis pubescentibus, racemis terminalibus bracteatis, leguminibus coriaceis.

Glycine frutescens. Willd. sp. pl. 3. p. 1067.

Anonymos frutescens. Walt. fl. car. 186.

- In swamps of Virginia, Carolina, and Illinois. b. June, July. v. v. Flowers purplish-blue. It is a fine ornamental plant.
- 573. DALEA. Hort. cliff. p. 363. Mich. fl. amer. 3. p. 56.

Cliffortiana.

1. D. spicis oblongis confertis pedunculatis terminalibus sericeis, bracteis calycis longitudine, foliis subsexjugis lineari-cuneatis retusis apice subdentatis.—Willd. sp. pl. 3. p. 1336.

Psoralea Dalea. Sp. pl. 1076.

Icon. Hort. cliffort. t. 22.

In Georgia and Florida. O. v. v. in Hortis. Flowers blue.

alopecuroides. 2. D. spicis cylindricis pedunculatis terminalibus sericeis confertis, bracteis calyce brevioribus, foliis 10-12jugis ellipticis retusis mucronatis. Willd. sp. pl. 3. p. 1336.

D. Linnæi. Mich. fl. amer. 2. p. 57. t. 38.

On the banks of the Mississippi. O. July, Aug. v.v. Flowers pale blue.

pedunculata.

3. D. glabriuscula; spicis oblongis axillaribus subconfertis brevibus, pedunculis folio triplo longioribus, bracteis minutis longitudine pedicellorum, dentibus calycis subulatis, foliis subsexjugis linearibus acutis mucronatis.

On the banks of the Mississippi. Enslen. O. July, Aug. v. s. in Herb. Enslen. Flowers rose-coloured.

parviflora.

4. D. cano-pubescens; spicis filiformibus elongatis laxifloris axillaribus, pedunculis folio duplo longioribus, bracteis minutis, calycis tomentosi dentibus acutis brevibus, foliis sub-5-jugis linearibus obtusis.

On the banks of the Missouri. O. July, Aug. v. s.

Flowers small, white.





Psoralea esculenta.

# 574. PSORALEA. Gen. pl. 1210.

1. P. tota canescens; foliis breviter petiolatis trifoliatis, spicis laxifloris, floribus pedicellatis, calycibus villosissimis. Mich. fl. amer. 2. p. 57.

In barren sandy fields of Carolina and Georgia. July. v. s. Resembles in appearance Cytisus Cajan.

2. P. parce pubescens; foliis ternatis: foliolis lanceolatis, melilotoides. spicis oblongis, bracteis lato-cordatis longissime acuminatis, leguminibus rotundatis nervoso-rugosissimis. -Mich. fl. amer. 2. p. 58.

Melilotus flore violaceo, odore remisso. Clayt. n. 103.

Trifolium psoraloides. Walt. fl. car. 184.

In pine-barrens: Carolina to Florida. 2. June-Aug. v. s. in Herb. Leconte. Flowers blue.

3. P. pubescens, ramosissima; foliis ternatis: foliolis ellipticis utrinque rugoso-punctatis, pedunculis axillaribus folio longioribus sub-3-floris.

On the banks of the Missouri. M. Lewis. 21. Sept. v. s. in Herb. Lewis. Flowers very small, pale blue.

4. P. pubescens; foliis ternatis: foliolis elongato-lanceolatis, petiolis crassis, spicis axillaribus folio vix longioribus densifloris, floribus pedicellatis, bracteis pedicello vix longioribus, dentibus calycis coloratis.

On the banks of the Missouri. 2. July, Aug. v. s. Flowers bright blue, small.

5. P. undique argenteo-tomentosa; foliis ternatis: foliolis lanceolato-oblongis, spicis terminalibus interruptis, bracteis ovatis acuminatis, floribus suboppositis sessilibus.

On the banks of the Missouri. 4. v. s. Flowers purple: the silvery tomentum gives this plant a particularly handsome appearance.

6. P. undique villosa; foliis digitato-quinatis: foliolis lanceolatis inæqualibus planis integerrimis, spicis axillaribus densifioris, laciniis calycis lanceolatis corolla paulo brevioribus, leguminibus ensiformi-rostratis, radice fusiformi.

On the banks of the Missouri. M. Lewis. 4. June, July. v. s. in Herb. Lewis. Flowers pale blue.

Tota planta pilis longis albidis tecta. Radix fusiformis, crassa, exsiccatione farinosa. Caulis erectus, subramosus, teres, sulcatus, pedalis et ultra. Folia alterna,

canescens.

tenuiflora.

lanceolata.

argophylla.

esculenta.

petiolata, digitato-quinata. Foliola subpetiolata, lanceolata, utrinque acuta, integerrima, plana, supra glabra, punctis vix conspicuis confertissime adspersa, subtus pilosa, uncialia. Petioli communes teretes, folio longiores. Stipulæ persistentes, ad basin petiolorum oppositæ, oblongo-lanceolatæ, acutæ. Spicæ axillares, pedunculatæ, densifloræ, bracteatæ, foliis longiores. Bracteæ lato-ovatæ, acuminatæ, calyce breviores. Flores sessiles, cærulei, magnitudine et figura Viciæ sativæ. Calyx hirsutissimus, 5-fidus s. profunde 5dentatus: dentibus lineari-lanceolatis: 2. lateralibus subfalcatis: inferus latior. Corolla: Vexillum obovatum, inferne utringue glandula instructum, calyce paulo longiore. Alæ semi-ovatæ, vexillo breviores. Carina oblonga. Legumen calve tectum, monospermum, hirsutum, rostro ensiformi, glabro, calyce longiore instructum. Semen reniforme, nigrum.

It approaches very near to P. pentaphylla Willd. sp. pl. 3. p. 1352, which is fully described and figured by B. Jussieu in Act. par. 1744. p. 381. t. 17. But not only the botanical difference, but the medical use made of the Mexican plant, proves their distinctness. The present plant produces the famous Bread-root of the American Western Indians, on which they partly subsist in winter. They collect them in large quantities, and if for present use, they roast them in the ashes, when they give a food similar to yams: if intended for winter use, they are carefully dried, and preserved in a dry place in their huts. When wanted for use, they are mashed between two stones, mixed with some water, and baked in cakes over the coals. It is a wholesome and nourishing food, and, according to Mr. Lewis's observation, agreeable to most constitutions; which, he observed, was not the case with the rest of the roots collected by those Indians for food. This root has been frequently found by travellers in the canoes of the Indians, but the plant which produces it has not been known until lately.

Lupinellus.

7. P. foliis quino-digitatis: foliolis angustissime linearibus, spica pauciflora, leguminibus ovoideis, uncinato-mucronatis, nervoso-rugosis.—*Mich. fl. amer.* 2. p. 58.

In barren fields of Carolina.  $\mathcal{U}$ . v.s. in Herb. Lyon. Flowers very small. The leaves of the whole genus are covered with resinous dots.

# 575. MELILOTUS. Tournef. inst. p. 407. t. 229.

1. M. caule erecto, foliolis obovatis serratis, spicis axillaribus paniculatis, leguminibus dispermis rugosis acutis. Trifolium officinale. Willd. sp. pl. 3. p. 1355.

Icon. Fl. dan. 934. Mart. fl. rust. t. 72.

On the gravelly shores of rivers: Pensylvania to Virginia. O. June, July. v.v. Flowers white.

officinalis.

#### 576. TRIFOLIUM. Gen. pl. 1211.

1. T. procumbens, pubescens; foliolis obovatis, stipulis oblique cordatis, capitulis multifloris, floribus pedicellatis demum omnibus reflexis, leguminibus sub-3-spermis.—Willd. sp. pl. 3. p. 1357.

On dry hills and among rocks: Pensylvania, Kentucky, and the Carolina mountains. 4. June, July. v. v.

Flowers of a fine purplish-red.

2. T. repens; foliolis ovato-oblongis emarginatis serrulatis, capitulis umbellaribus, calycinis dentibus subæqualibus, leguminibus tetraspermis.—Willd. sp. pl. 3. p. 1359.

Icon. Fl. dan. 990. Mart. fl. rust. 34.

In fields, pastures, and cleared lands on the mountains. 4. May—Sept. v. v. This species, generally known by the name of White Clover, makes its appearance wherever lands are cleared of timber, in the most remote parts of the country; I have seen it springing forward on new plantations, from sixty to one hundred miles distant from any place where it naturally was found. A number of plants of this description have struck my attention, among which are Verbascum Thapsus and Senecio hieracifolius in particular, whose dissemination is really problematical.

3. T. erectum, pusillum; foliolis rotundato-obcordatis gla- carolinianumbris margine ciliatis crenulatis, stipulis bifidis, capitulis umbellaribus pedunculatis reflexis paucifloris, corollis vix exertis, leguminibus subtrispermis.—Mich. fl. amer. 2. p. 58.

T. arvense. Walt. fl. car. 183.

T. comosum. Willd. sp. pl. 3. p. 1360?

In sandy fields, near Charlestown, South Carolina. 4. June—Aug. v. s. Flowers small, white. In Lam. encycl. 8. p. 2. it has been suggested, that T. como-

reflexum.

repens.

sum of Linnæus and the present plant are the same, and I believe with very good reason, as I suppose the little difference between them may have been occasioned by culture.

microcephalum.

- 4. T. adscendens, pubescens; foliolis obovatis emarginatis denticulatis, stipulis ovatis acuminatis, capitulis pusillis pedunculatis paucifloris, floribus sessilibus, involucris ovatis aristatis, calycibus aristatis longitudine corollæ.
  - On the banks of Clarck's river. M. Lewis. 4. July. v. s. in Herb. Lewis. Flowers exceeding small, pale purple.

pratense.

5. T. adscendens, glabriusculum; foliolis ovalibus subintegerrimis, stipulis aristatis, spicis densis ovatis, calycis dente infimo tubo corollæ monopetalæ inæqualis breviore. — Willd. sp. pl. 3. p. 1366.

Icon. Fl. dan. 989. Mart. fl. rust. 3.

In fields and woods, frequent. 21. May—Sept. v.v. Common Red Clover is apparently in a native state, but very probably has been introduced.

pensylvanicum. 6. T. adscendens; caule ramosissimo flexuoso, foliolis ovato-ellipticis obtusis integerrimis, stipulis aristatis, spicis ovato-cylindraceis solitariis densis, calycis dente infimo corollæ monopetalæ breviore.—Willd. enum. p. 793.

In woods and fields: Pensylvania to Virginia. 4. June—Sept. v. v. Resembles T. medium very much; flowers a fine red. It is known by the name of Buffalo

Clover.

arvense.

 T. erectum, ramosissimum, villosum; foliolis linearilanceolatis apice serrulatis, stipulis connatis apice subulatis, spicis villosissimis subcylindraceis, dentibus calycinis setaceis corolla longioribus.—Willd. sp. pl. 3. p. 1373.

Icon. Fl. dan. 724. Curt. fl. lond. 50.

In dry and sandy fields: Canada to Virginia.  $\odot$ . July, Aug. v.v. Flowers small, white; the wings have a red spot.

ægrarium.

8. T. erectum, subpubescens; foliolis lanceolato-cuneatis obtusis: intermedio sessili, stipulis lanceolatis acutis, spicis ovalibus imbricatis, vexillis deflexis persistentibus, calycinis dentibus subulatis glabris inæqualibus.—Willd. sp. pl. 3. p. 1382.

T. aureum. Pollich. fl. palat. n. 708.





Supinaster macrocephalus.

T. strepens. Crantz. fl. austr. 411. n. 8.

Icon. Fl. dan. 558.

In meadows: Pensylvania to Virginia. O. June-Aug. v. v. Flowers small, yellow.

9. T. procumbens; caule piloso; foliolis obovatis sube- procumbens. marginatis glabris, stipulis brevibus lanceolatis acutis, spicis ovalibus imbricatis, vexillis deflexis persistentibus sulcatis .- Willd. sp. pl. 3. p. 1383.

Icon. Fl. dan. 796.

On dry gravelly soil: Pensylvania to Virginia. O. June -Aug. v. v. Flowers yellow, resembling those of the foregoing species.

#### Moench. meth. suppl. p. 50. 577. LUPINASTER.

Pentaphyllon. Pers. syn. 2. p. 352.

1. L. foliolis novenis oblanceolatis, petiolis longissimis, sti- macrocephapulis cuneatis inciso-3-dentatis, calycinis dentibus fili-

formibus plumosis.

At the head-waters of the Missouri. M. Lewis. 4. April, May. v. s. in Herb. Lewis. Flowers yellowishwhite, with a pale purple carina, very handsome and showy: the flower-heads sometimes grow to an ex-

tremely large size.

Caules plures, simplices, angulosi, pilosi. Folia petiolata, suprema opposita, novena. Foliola inægualia, cuneatolanceolata, inæqualiter mucronato-denticulata, supra glabra, subtus pilosa, lineato-venosa, uncialia. tioli inferiores longi, subteretes. Stipulæ inferiores petiolo adnatæ, superiores liberæ, cuneato-oblongæ, apice inciso-3-dentatæ, margine serrulatæ, consistentia et pubescentia foliorum. Capitulum speciosum, dimidiatum. Flores lutescentes, carina purpurascente. Cal. campanulatus, subæqualiter 5-dentatus, villosissimus: dentibus subulatis piloso-plumosis corollam subæquantibus. Corollæ: Vexillum magnum, oblongo-lanceolatum, acutum, cæteras partes fructificationis involvens. Alæ carinæ adnatæ, lineares. Carina uncinata, integra, vexillo vix breviore. Filamenta 10. diadelpha: 1. liberum, reliqua superne libera, inferne monadelpha, carina adnata. Germen oblongum, gla-Stylus filiformis. Stigma simplex, hirsutum. Legumen 3-4-spermum, inflatum, calyce longius.

lus.

### 578. STYLOSANTHES. Gen. pl. 1203.

hispida.

 S. caule uno latere pubescente, foliolis lanceolatis glabris, bracteis lanceolatis ciliatis, capitulis 2-3-floris.—Mich. fl. amer. 2. p. 75.

Trifolium biflorum. Sp. pl. 1088. Arachis aprica. Walt. fl. car. 182.

erecta.

α. S. caule simplici erecto superne breviter ramoso.

Icon. Swartz. act. holm. 1789. t. 11. f. 2.

procumbens.

\( \beta. \) S. caule procumbente a basi ramoso.

In dry gravelly fields and woods; Pensylvania to Carolina, \( \mu \). July, Aug. \( \v. \v. \). Flowers yellow, small.

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### 579. GLYCYRRHIZA. Gen. pl. 1197.

lepidota.

1. G. foliolis oblongis acutis sericeo-villosis, leguminibus racemosis oblongis hispidis.—Fraser. catal.

On the banks of the Missouri. 2. July, Aug. v.s. v.v.s.ft.

#### 580. LESPEDEZA. Mich. fl. amer. 2. p. 70.

sessiliflora.

 L. erecta; foliolis oblongis, fasciculis florum sessilibus numerosis, lomentis calyce minuto subnudatis acutis. Mich. fl. amer. 2. p. 70.
 Hedysarum junceum. Walt. fl. car. 184.

Hedysarum sessiliflorum. Lam. encycl. 6. p. 414. Hedysarum reticulatum. Willd. sp. pl. 3. p. 1194.

Medicago virginica. Syst. veg. 3. p. 573.

In old fields and on the borders of woods: New York to Carolina. 24. July, Aug. v.v. Flowers purple.

capitata.

 L. erecta, simplex; foliis subsessilibus: foliolis ellipticis, spicis capitatis brevi-pedunculatis axillaribus et conglobato-terminalibus, calycibus villosis longitudine corollæ lomentis calyce multo minoribus. Mich. fl. amer. 3. p. 71.

Hedysarum conglomeratum. Lam. encycl. 6. p. 416. β. L. foliolis linearibus, pedunculis longioribus.

angustifolia.

Trifolium erectum haud ramosum, foliis longis, &c. Clayt. n. 934.

In sandy soil, in old fields and borders of woods: New York to Carolina. 2. June, July. v.v. From one to three feet high; flowers pale purple.

polystachya.

3. L. erecta, ramosa, villosissima; foliis subsessilibus: foliolis rotundato-ovalibus, spicis axillaribus longe-pe-

#### DIADELPHIA DECANDRIA. Lespedeza.

dunculatis, corollis calyce subæqualibus, lomento calycem subæquante.—Mich. fl. amer. 3. p. 71.

Hedysarum hirtum. Willd. sp. pl. 3. p. 1193.

Icon. Mich. fl. amer. 2. t. 40.

In copses and old fields: Pensylvania to Carolina. June-Aug. v. v. From two to three feet high; flowers small, white, with a red spot on the vexillum.

4. L. diffusa, ramosissima; foliis longe-petiolatis: foliolis ellipticis obtusis subtus adpresso-pilosis, racemis brevibus umbellatis, floribus geminatis, lomentis rhombeis reticulatis glabris.

Hedysarum violaceum. Willd. sp. pl. 3. p. 1195.

On gravelly dry soil: Virginia to Carolina. 4. July. Flowers small, purple or violet.

5. L. diffusa, ramosa; foliolis oblongis obtusis subtus adpresso-pilosis, racemis petiolo longioribus, floribus geminis, lomentis ovatis reticulatis glabris.

Hedysarum divergens. Willd. sp. pl. 3. p. 1106.

In North America. Muhlenberg. 4. +. Approaches very near to the foregoing species, and is probably only a variety.

6. L. procumbens, gracilis, pubescens; foliolis ovalibus, procumbens. pedunculis longissimis, setaceis spicifloris, leguminibus calyce minuto nudatis.—Mich. fl. amer. 3. p. 70.

Hedysarum Lespedeza. Lam. encycl. 6. p. 415.

In sandy and gravelly soil: New York to Carolina. 4. June, July. v. v. Flowers violet-purple, with yellow spots.

7. L. prostrata; foliis petiolatis: foliolis ellipticis obtusis subtus pilis raris adpressis tecta, racemis axillaribus folio longioribus, lomentis ovatis pubescentibus.

Hedysarum prostratum. Willd. sp. pl. 3. p. 1200. In Pensylvania. Muhlenberg. 4. +. Resembles Hedysarum repens greatly.

# 581. HEDYSARUM. Gen. pl. 1204.

1. H. erectum, glabriusculum; foliis ternatis oblongo-lanceolatis, stipulis filiformibus, floribus racemosis, articulis lomenti obtuse triangulis hispidis.-Willd. sp. pl. 3. p. 1187.

Icon. Moris. hist. 2. s. 2. t. 11. f. 9.

In sandy barren fields and woods: Canada to Carolina. 4. July, Aug. v. v. Flowers middle-sized, of a handsome purplish-red.

violacea.

divergens.

prostrata.

eanadense.

canescens.

2. H. erectum, pilosum; caule angulato-ciliato hispido, foliis ternatis subrotundis subtus adpresso-pilosis, stipulis ovatis acuminatis, racemis paniculatis, bracteis cordatis, lomenti articulis triangularibus hispidis.—Willd. sp. pl. 3. p. 1188.

In dry barren woods: Virginia and Carolina. 4. June
—Aug. v. v. Flowers middle-sized, pale purple.

marylandicum. 3. H. erectum, ramosum, pilosum; foliis ternatis oblongis subtus villosis, stipulis subulatis, racemis paniculatis, lomentis triarticulatis, articulis rhombeis reticulatis pilosiusculis.—Willd. sp. pl. 3. p. 1189.

Icon. Dill. elth. t. 174. f. 171.

In dry swamps and woods: New York to Carolina. 2.

June—Aug. v. v. Flowers large, a fine purple, with a green spot at the bottom of the vexillum, which mark occurs in most species.

obtusum.

4. H. erectum, pubescens; foliis ternatis ovatis obtusis basi subcordatis, stipulis lanceolato-subulatis, panicula terminali, articulis lomenti semiorbiculatis reticulatis hispidis.—Willd. sp. pl. 3. p. 1190.

In dry swamps, old fields and woods: Pensylvania to Virginia. 4. July, Aug. v. v. Flowers violet.

viridiflorum.

5. H. erectum, ramosum, pubescens; foliis ternatis ovatooblongis subtus scabris, stipulis lanceolato-cuspidatis, racemis paniculatis bracteatis, lomentis asperis, articulis ovalibus.— Willd. sp. pl. 3. p. 1192.

Icon. Pluk. alm. t. 308. f. 5.

In woods and old fields: New Jersey to Carolina.  $\mathcal{U}$ .

July—Sept. v. v. About three feet high; flowers reddish-purple, which turns green after flowering.

glabellum.

6. H. erectum, glabrum; foliis ternatis ovatis obtusis subtus subglaucis, stipulis parvis subulatis, panicula terminali, lomenti articulis triangulo-rhomboideis.— Mich. fl. amer. 3. p. 73.

In fields and woods: Virginia and Carolina. 4. July, Aug. v. v. Flowers purple, small.

bracteosum.

7. H. erectum, glabrum; foliis ternatis oblongo-ovalibus acuminatis, stipulis subulatis, racemo terminali sparsifloro, bracteis ovatis acuminatis striatis glabris, lomenti articulis subovalibus.—Mich. fl. amer. 2. p. 73.

In the western parts of Pensylvania and Virginia. 4. July—Sept. v. v. Flowers large, purplish-red.

ciliare.

8. H. erectum, glabriusculum; foliis ternatis ovatis subtus

pubescentibus margine ciliatis, stipulis filiformibus, panicula terminali, lomenti articulis (2-3) semiorbiculatis hispidis. - Willd. sp. pl. 3. p. 1196.

In North America. Muhlenberg. 4. +. Flowers small,

violet.

9. H. erectum, glabrum; foliis ternatis oblongo-lanceolatis paniculatum. vel ellipticis glabris, stipulis subulatis panicula terminali, lomenti articulis (4) rhombeis pubescentibus.-Willd. sp. pl. 3. p. 1196.

Icon. Pluk. mant. t. 432. f. 6.

In dry woods and fields: New York to Carolina. 21. June—Aug. v. v. Flowers purple.

10. H. stricte-erectum, glabrum, simplex; foliis petiolatis ternatis lineari-ellipticis glabris reticulato-venosis subtus glaucis, stipulis subulatis, panicula terminali pedunculata pauciflora.

In pine-woods of New Jersey. 4. July, Aug. Flowers small, pale purple; seeds not known.

11. H. erectum, glabrum; foliis ternatis petiolatis ovatooblongis longe-acuminatis glabris margine scabris, stipulis ovato-lanceolatis, panicula terminali, articulis lomenti triangularibus reticulatis glabris margine pubescentibus. - Willd. sp. pl. 3. p. 1198.

In shady woods: Pensylvania and Virginia. 2. July,

v. v. Flowers violet.

12. H. erectum, simplex, pubescens, summitate frondosum; acuminatum. foliis ternatis ovatis longe acuminatis utrinque rariter adpresso-pilosis longissime petiolatis : impari rotundato-subrhomboideo, panicula terminali longissime pedunculata .- Mich. fl. amer. 2. p. 72.

In shady woods: New England to Carolina. Aug. v.v. Not above a foot high; flowers purple. It approaches near the foregoing species, and is the connecting link between that and the following.

13. H. erectum, simplex, glabriusculum; foliis ternatis latoovalibus acuminatis, scapo paniculato glabro radicali caule foliifero altiore, lomenti articulis subrotundo-triangularibus glabriusculis.—Willd. sp. pl. 3. p. 1198.

In woods and old fields: New England to Carolina. 4. June—Sept. v. v. About a foot high; flowers

purple.

14. H. erectum, simplex; foliis longe petiolatis ternatis subrotundo-ovatis acuminatis, panicula scapiformi e caulis

strictum.

cuspidatum.

nudiflorum.

glutinosum.

basi, pedunculis piloso-viscosis, lomenti articulis oblongo-triangularibus glabriusculis.—Willd. sp. pl. 3. p. 1198.

In dry shady places, in the western parts of Pensylvania and Virginia. 4. July, Aug. v. v. Flowers purple.

lineatum.

15. H. caule repente viridi lineato, foliis subsessilibus ternatis suborbiculatis, racemis elongatis laxe parvifloris, lomenti articulis lenticularibus.—*Mich. ft. amer.* 2. p. 72.

In Carolina. Michaux. 4. +.

rotundifolium. 16. H. prostratum, hirsutum; foliis ternatis orbiculatis utrinque pilosis, stipulis rotundato-cordatis reflexis, racemis axillaribus et paniculato-terminalibus paucifloris, bracteis cordatis, lomenti articulis subrhomboideis reticulatis scabris.—Mich. fl. amer. 2. p. 72.

In rocky, dry situations: Pensylvania to Carolina. 4.
July, Aug. v. v. A handsome species: flowers

purple.

alpinum. β. americanum. 17. H. erectum; foliis pinnatis: foliolis ovali-oblongis pilosis, stipulis subvaginantibus, leguminibus patulis glabris ex utraque sutura articulatis: articulis brevi-ovalibus. Mich. fl. amer. 2. p. 74.

In the north of Canada, and near the cataracts of the Allegany mountains. Michaux. 4. +. Flowers

purple.

582. ZORNIA. Mich. fl. amer. 2. p. 76. Gmel. syst. veg. 1096.

tetraphylla.

1. Z. foliis digitato-quadrifoliatis: foliolis lanceolatis glabris, spicis axillaribus pedunculatis, floribus alternis bibracteatis, bracteis suborbiculatis.— Mich. fl. amer. 2. p. 76.

Z. bracteata. Gmel.

Hedysarum tetraphyllum. Lam. encycl. 6. p. 405.

Anonymos bracteata. Walt. fl. car. 181.

Icon. Mich. fl. amer. 2. t. 41.

In sandy fields of Lower Carolina. 4. July, Aug. v.s. in Herb. Enslen. About a foot high, very branching; flowers yellow.

### 583. ÆSCHYNOMENE. Gen. pl. 1202.

1. A. caule prostrato gracili viscido-pubescente, foliolis 7—9. obovalibus, pedunculis subbifloris, lomento pubescente profunda incisura articulata.—*Mich. fl. amer. 3. p. 74.* 

On the overflowed sands of Florida, and Cumberland

island, Georgia. Michaux. O. +.

 A. caule erecto petiolisque tuberculato-hispido, foliis multijugis: foliolis linearibus obtusis, stipulis membranaceis semisagittatis, racemis simplicibus paucifloris, lomentis hispidis.—Willd. sp. pl. 3. p. 1163.
 Hedysarum virginicum. Willd. sp. pl. 3. p. 1212.

On the banks and islands of the principal rivers, as far as the tide flows: Pensylvania to Carolina. ①. July, Aug. v.v.; v.s. in Herb. Gronov. Flowers yellow, finely veined with red.

### 584. SESBANIA. Poiret in lam. encycl. 7. p. 126.

 S. glabra; foliis sub-20-jugis: foliolis oblongis obtusis glabris margine ciliatis, racemis pedunculatis paucifloris folio brevioribus, lomentis lato-lanceolatis compressis longe stipitatis subdispermis.

S. platycarpa. Pers. syn. 2. p. 316. Robinia vesicaria. Jacq. ic. rar. 1. t. 48.

Phaca floridana. Pers. syn. 2. p. 331.

Æschynomene platycarpa. Mich. fl. amer. 2. p.75.

In overflowed places: Carolina and Florida.  $\odot$ . v. s. Flowers yellow.

## 585. GLYCINE. Gen. pl. 1182.

G. caule volubili, foliis ternatis ovatis acutis glabris, racemis filiformibus sub-3-floris, floribus apetalis, leguminibus oblongis dispermis. — Willd. sp. pl. 3. p. 1055.

G. monoica. Schkuhr bot. annal. 12. p. 20. t. 2.

In low grounds, among bushes: Virginia and Carolina.

O. July, Aug. v. v. It might with propriety form a separate genus, if the following species did not show the strong claim it has to be still considered a Glycine.

 G. caule gracili retrorsum piloso, foliis ternatis ovatis glabris membranaceis, racemis caulinis pendulis laxis corollatis plerumque sterilibus, bracteis suborbiculatis viscidula.

hispida.

disperma.

sarmentosa.

monoica.

concavis, pedunculis radicalibus floribus apetalis fructiferis.— Willd. sp. pl. 3. p. 1055.

G. bracteata. Sp. pl. p. 754.

On the banks of rivulets in stony and shady places: New York to Carolina. O. July—Sept, v. v. The flowers on the stem resemble those of Vicia Cracca, they are pale blue, and seldom produce ripe fruit; the long radical tendrils have exceeding small flowers which produce a pod, generally with only one seed, which drops into the ground before maturity.

comosa.

3. G. caule volubili, foliis ternatis ovato-lanceolatis acutis hirsutis, racemis lateralibus pendulis confertifloris, floribus omnibus fructiferis.—Willd. sp. pl. 3, p. 1058.

In hedges near rivers and ditches: New York to Virginia. 4. July—Sept. v. v. Flowers blue, of the size and shape of the preceding species, to which it has a strong resemblance, but differs in being a perennial and robust plant, besides the other characters given.

tomentosa.

4. G. caule volubili anguloso, foliis ternatis ovato-oblongis acutis pubescentibus, subtus rugoso-venosis tomentosis, racemis axillaribus petiolo brevioribus, leguminibus oblongis dispermis.—Willd. sp. pl. 3. p. 1061. Icon. Dill. elth. t. 26. f. 29.

erecta.

β. G. tomentosior; caule erecto, foliis oblongo-ovalibus.
Trifolium erectum. Walt. fl. car....

In sandy ground, among hedges: β. on road sides and old fields: Virginia to Georgia. 4. June—Aug. v.v. Flowers yellow.

reniformis.

5. G. erecta, humilis, pubescens; foliis omnibus simplicibus reniformi-rotundatis rugosis reticulatis, junioribus tomentosis, racemis subsessilibus paucifloris, legumibus compresso-ovatis dispermis.

G. tomentosa y. monophylla. Mich. fl. amer. 2. p. 63.

Trifolium simplicifolium. Walt. fl. car. 184.

In barren pine-woods: Carolina and Georgia. 4. July, Aug. v.s. Flowers yellow.

586. GALACTIA. Brown. Mich. fl. amer. 2. p. 61.

mollis.

1. G. volubilis, molliter pubescens, subcanescens; foliis ternatis ovato-oblongis obtusis glabriusculis subtus glaucis, racemis axillaribus simplicibus elongatis paucifloris, leguminibus villosis.—*Mich. fl. amer.* 2. p. 61.

Hedysarum volubile. Willd. sp. pl. 3. p. 1204.

In pine-barrens: New Jersey to Carolina. 4. July, Aug. v.v. Flowers purple, with yellow and white, the size of Hedysarum paniculatum.

2. G. prostrata, subvolubilis, glabriuscula; foliis ternatis elliptico-oblongis obtusis utrinque emarginatis utrinque glabris, racemis axillaribus simplicibus abbreviatis paucifloris, calycibus glabris, leguminibus villosis.—*Mich. fl. amer.* 2. p. 62.

Dolichos regularis. Willd. sp. pl. 3. p. 1049.

Ervum volubile. Walt. fl. car. 187.

In pine-woods and sandy fields: New Jersey to Carolina. 4. June—Sept. v.v. The roots are fusiform, and extend to a great depth: the flowers, though not large, are extremely pretty, purple, red and white mixed.

### 587. CLITORIA. Gen. pl. 1183.

1. C. foliis ternatis ovatis calyce bracteis longiore 5-partito: laciniis subulatis incurvis divergentibus, leguminibus subensiformibus.—Willd. sp. pl. 3. p. 1069.

Icon. Dill. elth. t. 76. f. 87.

In hedges: Virginia and Carolina. 4. July, Aug. v. v. Flowers large, beautiful blue, very handsome and ornamental.

2. C. foliis ternatis, calyce bracteis lineari-lanceolatis multoties majore, oblongo-tubuloso 5-fido, legumine faciebus convexis toruloso, seminibus glutinosis. *Mich. fl. amer.* 2. p. 62. *Willd. sp. pl.* 3. p. 1070.

In hedges on the banks of rivulets: Virginia and Carolina. 4. July—Sept. v. v. Flowers smaller and

of a paler blue than the preceding.

## 588. ROBINIA. Gen. pl. 1195.

1. R. foliis impari-pinnatis, stipulis spinescentibus, racemis *Pseudacacia's* pendulis, calycis dentibus muticis, leguminibus lævibus.—Willd. sp. pl. 3. p 1131.

Icon. Schmidt arb. 32. Duham. arb. ed. nov. 16. Wangh. arb. t. 7. f. 19. Pluk. alm. t. 4.

On dry fertile ridges on the mountains, from Canada to Carolina. 12. May, June. v. v. Flowers white, sweet-scented. This highly ornamental tree is at the same time a most useful one: its wood is almost in-

glabella.

virginiana.

mariana.

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corruptible, and particularly calculated for posts of gates and fences. It is universally known by the name of False Acacia, in America Locust-tree.

viscosa.

2. R. foliis impari-pinnatis, racemis axillaribus erectis confertifloris, calycibus acuminatis, ramis petiolis pedunculis leguminibusque glanduloso-viscosis.—Willd. sp. pl. 3. p. 1131.

R. glutinosa. Bot. mag. 560.

Icon. Vent. desc. pl. nov. t. 4. Duham. arb. ed. nov. 17.
On the banks of rivers in South Carolina, particularly on the Savannah. 1/2. June, July. v. v. Flowers pale red, with white. This tree is highly ornamental; but its creeping roots are a great nuisance in small plantations.

hispida.

 R. foliis impari-pinnatis: foliolis rotundato-ovalibus mucronatis, racemis axillaribus suberectis, calycibus acuminatis, caule subinermi, ramis pedunculis calycibus leguminibusque hispidis.—Willd. sp. pl. 3. p. 1132.

R. montana. Bartr. catal.

R. rosea. Duham. arb. ed. nov. 18.

İcon. Bot. mag. 311. Schmidt arb. 31. Catesb. car. 3. t. 20. Mill. ic. 244.

rosea.

β. R. foliolis plerumque alternis, ramulis glabriusculis.
On the high mountains of Virginia and Carolina. β.
May—Sept. v. v. Flowers large, a beautiful rose-colour, inodorous. This elegant little shrub is one of the highest ornaments of our gardens and plantations. The var. β. is less hispid, and grows to a considerable large upright shrub, whereas the original hispida is a low straggling plant.

## 589. INDIGOFERA. Gen. pl. 1205.

caroliniana.

1. I. herbacea, erecta; foliis pinnatis: foliolis obovalibus, spicis folio longioribus pedunculatis, floribus distantibus, leguminibus pendulis subdispermis reticulatovenosis.—Walt. fl. car. 187. Mich. fl. amer. 2, p. 68.

In sandy fields: Carolina to Florida. 4. v. s. Flowers blue.

### 590. TEPHROSIA. Pers. syn. 2. p. 329.

1. T. erecta, candicanti-villosa; foliolis (17—21) ovalioblongis acuminatis, racemo terminali brevi subsessili, leguminibus retrofalcatis villosis, calycibus lanatis.— Pers. syn. 2. p. 329. virginiana.

Galega virginiana, Pluk, alm. t. 23. f. 2.

In sandy and dry woods: Canada to Florida. 4. June, July. v. v. About a foot high; flowers very handsome, rose-coloured and yellowish white.

2. T. prostrata, pubescens; foliis pinnatis quinis subsessili- chrysophylla. bus: foliolis cuneato-obovatis obtusissimis supra glabris, subtus sericeis, pedunculis oppositifoliis elongatis sub-3-floris, leguminibus rectiusculis.

Galega villosa. Mich. fl. amer. 2. p. 67?

In Georgia. Enslen. 4. July, Aug. v. s. in Herb. Enslen. Flowers purple. The singular circumstance of the nearly sessile leaves, gives it the appearance of a trifoliate plant, the lower pair representing stipulæ. Though Michaux's description answers very well in any other respect, I was led to doubt by his not mentioning the number of leaves, which is one of the most striking characters.

T. gracilis, humifusa, pubescens; foliolis (13—15) oblongo-ellipticis truncato-obtusis mucronatis, pedunculis oppositifoliis elongatis 3—5-floris, leguminibus oblongis falcatis hispidis.

hispidula.

Galega hispidula. Mich. fl. amer. 2. p. 68.

Galega spicata. Walt. fl. car. 188.

In pine-woods and on slate-hills: Virginia to Georgia. 4. July—Sept. v. v. Flowers pale red.

## 591. LOTUS. Gen. pl. 1212.

 L. foliis ternatis subsessilibus oblongis acutis sericeo-villosis, pedunculis axillaribus unifloris folio longioribus, flore unibracteato, calycinis laciniis linearibus, legumine glabro longissimo. sericeus.

On the banks of the Missouri. O. v. s. Flowers yellow.

#### 592. MEDICAGO. Gen. pl. 1214.

lupulina.

1. M. spicis ovalibus, leguminibus reniformibus monospermis stipulis integerrimis, foliolis obovatis, caulibus procumbentibus.—Willd. sp. pl. 3. p. 1406.

Icon. Schkuhr handb. t. 212.

In gravelly soil, on road sides: Canada to Carolina. O. June—Sept. v. v. Flowers small, yellow.

intertexta.

2. M. pedunculis subbifloris, leguminibus cochleatis ovalibus, aculeis pubescentibus setaceis distichis adpressis, stipulis ciliato-dentatis, foliolis obovatis dentatis.—
Willd. sp. pl. 3. p. 1411.

M. polymorpha intertexta. Sp. pl. 1098.

Icon. Schkuhr handb. 212. b.

In sandy fields: Carolina. July, Aug. v.v. Flowers yellow.

Note.—In addition to the observations under Psoralea esculenta, p. 475. it may be interesting to state, that A. B. Lambert, Esq. raised in the summer of 1812 a number of plants, the seeds of which were taken out of a specimen collected in the year 1805 by M. Lewis, Esq. Also, that this highly interesting plant is now growing at Messrs. Frasers, Sloane Square.

# XVII. SYNGENESIA.

## I. ÆQUALIS.

### \* Ligulatæ.

593. CICHORIUM. Recept. subpaleaceum. Pappus polyphyllus, paleaceus. Cal. calyculatus.

594. APARGIA. Recept. nudum. Pappus plumosus, ses-

silis. Cal. imbricatus.

505. SCORZONERA. Recept, nudum. Pappus plumosus, substipitatus. Cal. imbricatus, squamis margine scariosis.

596. LEONTODON. Recept. nudum. Pappus plumo-

sus, stipitatus. Cal. imbricatus, squamis laxiusculis. 597. CHONDRILLA. Recept. nudum. Pappus pilosus, stipitatus. Cal. calyculatus. Flosculi multiplici serie. Sem. rugosa.

598. PRENANTHES. Recept. nudum. Pappus simplex, subsessilis. Cal. calyculatus. Flosculi simplici serie.

599. LACTUCA. Recept. nudum. Pappus simplex, stipitatus. Cal. imbricatus, cylindricus, margine membranaceo. Sem. lævia.

600. SONCHUS. Recept. nudum. Pappus pilosus, ses-

silis. Cal. imbricatus, ventricosus,

601. HIERACIUM. Recept. nudiusculum. Pappus simplex, sessilis. Cal. imbricatus, ovatus.

602. KRIGIA. Recept. nudum. Pappus membranaceus, 5-phyllus, setis 5. iterstinctis. Cal. polyphyllus, sim-

plex. 603. HYOSERIS. Recept. nudum. Pappus duplex: exterior capillaceus; interior paleaceo-aristatus. Cal.

calyculatus.

604. TROXIMON. Recept. nudum, puncticulatum. Pappus pilosus, sessilis. Cal. oblongus, conicus, simplex, aut squamis inæqualibus imbricatus.

#### \*\* Flosculosæ.

605. STOKESIA. Recept. nudum. Pappus 4-setosus. Cal. foliaceus, subimbricatus. Cor. radiata: corollulis radii infundibuliformibus, irregularibus.

606. ARCTIUM. Recept. paleaceum. Pappus setosopaleaceus. Cal. globosus: squamis apice hamis in-

flexis.

607. CNICUS. Recept. villosum. Pappus plumosus. Cal. imbricatus, ventricosus.

608. CARDUUS, Recept. villosum. Pappus capillaris. Cal. imbricatus, ventricosus.

609. LIATRIS. Recept. nudum. Pappus plumosus, colo-

ratus. Cal. oblongus, imbricatus.

610. VERNONIA. Recept. nudum. Pappus duplex: exterior paleaceus, brevis; interior capillaris. Cal. ovatus, imbricatus.

611. KUHNIA. Recept. nudum. Pappus plumosus. Cal.

imbricatus, cylindraceus.

612. EUPATORIUM. Recept. nudum. Pappus pilosus. Cul. imbricatus, cylindricus. Stylus semibifidus, longus.

613. M!KANIA. Recept. nudum. Pappus pilosus s. plumosus. Cal. 4-6-phyllus, 4-6-florus. Stylus se-

mibifidus, longus.

614. CHRYSOCOMA. Recept. nudum. Pappus pilosus. Cal. imbricatus. Stylus vix flosculis longior.

615. CACALIA. Recept. nudum. cylindricus, basi calyculatus. Pappus pilosus. Cal.

616. SPARGANOPHORUS. Recept. nudum. Sem. coronatum cupula subcartilaginea, integerrima, nitida. Cal. subglobosus, imbricatus: squamis apice recurvatis.

617. HYMENOPAPPUS. Recept. nudum. Pappus polyphyllus, paleaceus. Cal. polyphyllus, patens.

Recept. paleaceum: paleis 618. MELANANTHERA. flosculos inferne amplexantibus. Pappus aristis inæqualibus, 4-5-inermibus. Cal. imbricatus: squamis ovatis, appressis, subæqualibus.

619. MARSHALLIA. Recept. paleaceum. Puppus paleis 5. membranaceis, acuminatis. Cal. imbricatus: squa-

mis sublanceolatis incumbentibus.

620. SANTOLINA. Recept. paleaceum. Pappus nullus, Cal. imbricatus, hemisphæricus: squamis carinatis apice scariosis.

#### II. SUPERFLUA.

#### \* Discoidei.

621. ARTEMISIA. Recept. subnudum. Pappus nullus. Cor. radii nullæ. Cal. imbricatus: squamis rotundatis, conniventibus.

622. TANACETUM. Recept. nudum. Pappus submarginatus. Cor. radii obsoletæ, 3-fidæ. Cal. imbrica-

tus, hemisphæricus: squamis acuminatis.

623. BACCHARIS. Recept. nudum. Pappus pilosus. Floscul. feminei hermaphroditis immixti. Cal. imbricatus, cylindricus: squamis ovatis subcoriaceis.

624. CONYZA. Recept. nudum. Pappus simplex, capillaris. Cor. radii 3-fidæ. Cal. imbricatus: squa-

mis linearibus aut ovatis.

625. GNAPHALIUM. Recept. nudum. Pappus plumosus. Cal. imbricatus: squamis marginalibus rotundatis, scariosis, coloratis.

#### \*\* Radiati.

626. BELLIS. Recept. nudum. Pappus nullus. Cal. hemisphæricus: squamis æqualibus. Sem. obovata.

627. CHRYSANTHEMUM. Recept. nudum, Pappus nullus. Cal. hemisphæricus, imbricatus; squamis intimis scariosis.

628. PYRETHRUM. Recept. nudum. Pappus marginatus. Cal. squamis acutiusculis margine scariosis.

629. ARNICA. Recept. nudum. Pappus simplex, pilosus. Cal. hemisphæricus; foliolis subæqualibus disco longioribus. Cor. radii (luteæ) sæpius filamentis 5. absque antheris.

630, CINERARIA. Recept. nudum. Pappus simplex.

Cal. simplex, polyphyllus, æqualis.

631. SENECIO. Recept. nudum. Pappus simplex. Cal. cylindricus, calyculatus: squamis apice sphacelatis.

632. TUSSILAGO. Recept. nudum. Pappus simplex. Cor. femineæ ligulatæ s. edentulæ. Cal. simplex : squamæ æquales, discum æquantes, submembranaceæ.

633. INULA. Recept. nudum. Pappus simplex. Cal.

imbricatus. Cor. radii numerosæ (luteæ). 634. ERIGERON. Recept. nudum. Pappus pilosus. Cor. radii capillares (coloratæ).

635. SOLIDAGO. Recept. nudum, punctis exaratum. Pappus simplex. Cor. radii circiter 5. (flavæ). Cal. squamæ imbricatæ, clausæ.

636. ASTER. Recept. nudum, scrobiculatum. Pappus pilesus. Cor. radii plures, sæpius 10. (aut pauciores, colorati). Cal. imbricati squamæ inferiores patulæ.

637. DONIA. Recept. nudum, favosum. Pappus 3-4aristatus, deciduus. Cor. radii plures (30-35 flavi). Cal. hemisphæricus, imbricatus: squamis interioribus cartilagineis, coloratis.

638. BŒBERA. Recept. nudum. Pappus pilosus. Cal. duplex: exterior polyphyllus, interior octophyllus.

639. ACTINELLA. Recept. nudum. Pappus polyphyllus (4-6), paleaceo-aristatus. Cal. polyphyllus, æqualis.

640. HELENIUM. Recept. nudum: radii paleaceum. Pappus 5-aristatus. Cor. radiis 3-fidis. Cal. simplex,

multipartitus.

641. BOLTONIA. Recept. favosum. Pappus dentatoaristatus: aristis duabus oppositis interdum elongatis.

Cor. radii plurimæ. Cal. imbricatus. IEGESBECKIA. Recept. paleaceum. 642. SIEGESBECKIA. nullus. Radius dimidiatus. Cal. exterior 5-phyllus,

proprius patens. Sem. sub-4-gona.
643. PHÆTHUSA. Recept. paleaceum. Pappus nullus. Flosculi radii 1-3. Cal. imbricatus. Sem. hispida.

644. ECLIPTA. Recept. paleaceum. Pappus nullus. Cor. disci 4-fidæ. Sem. subcompresso-marginata, obsolete 2-3-dentata.

645. ANTHEMIS. Recept. paleaceum: paleis planis, apice acuminatis, rigidis. Pappus nullus s. margo membranaceus. Flores radii plures quam 5. Cal. hemisphæricus, subæqualis.

646. ACHILLEA. Recept. paleaceum. Pappus nullus. Flosc. radii circiter 5., dilatati. Cal. ovatus, imbri-

catus. (Flores corymbosi.)

647. TETRAGONOTHECA. Recept. paleaceum. Pappus nullus. Cal. monophyllus, 4-gonus, 4-partitus, latissimus.

648. HELIOPSIS. Recept. paleaceum, conicum. Pappus nullus. Cor. radii lineares, magnæ. Cal. imbricatus: squamis ovatis, lineatis. Sem. 4-gona.

649. BUPHTHALMUM. Recept. paleaceum. Pappus margo obsoletus s. 4-dentatus. Cal. foliaceus. Sem. latera, præsertim radii, marginata.

650. AMELLUS. Recept. paleaceum. Pappus pilosus. Cor. radii indivisæ. Cal. imbricatus.

651. VERBESINA. Recept paleaceum. Pappus aristatus Flosc. radii circiter 5. Cal. duplici ordine.

652. ZINNIA. Recept. paleaceum. Pappus aristis 2. erectis. Radius 5-florus, persistens. Cal. imbricatus, ovato-cylindricus.

### III. FRUSTRANEA.

653. BIDENS. Recept. paleaceum: paleis extimis quasi calycem communem constituentibus. Pappus aristis 2 s. 4. retrorsum. Flores flosculosi aut etiam radiati: radiis neutris aut imperfecte masculis. Calsubæqualis, calyculatus.

654. COREOPSIS. Recept. et Cal. comm. Bidentis. Flores radiati: radiis neutris, prolixis (luteis). Sem. compressa aut emarginata, aut bidentata, aut etiam bisetosa: setis inermibus nec retrorsum aculeatis.

655. HELIANTHUS. Recept. paleaceum, planum. Pappus diphyllus, caducus. Cal. imbricatus, subsquarrosus, foliaceus.

656. GALARD (A. Recept. paleaceum, hemisphæricum.

Pappus paleaceus, polyphyllus. Cor. radii 3-partitæ.

Cal. polyphyllus, planus.

657. RUDBECKIA. Recept. paleaceum, conicum. Pappus margine 4-dentato. Cal. duplici ordine squa-

marum.

658. CENTAUREA. Recept. setosum. Pappus pilosus. Cor. radii infundibuliformes, irregulares. Cal. varius.

### IV. NECESSARIA.

659. CHAPTALIA. Recept. nudum. Pappus capillaris. Flosculi radii in duplici serie difformes, feminei. Flosculi disci masculi bilabiati.

 SILPHIUM. Recept. paleaceum. Pappus marginatobicornis. Cal. squarresus, foliaceus. Sem. com-

pressa, obcordata, marginata.

661. POLYMNIA. Recept. paleaceum. Pappus nullus. Cal. duplex: exterior 4-5 phyllus; interior 10-phyllus, foliolis concavis.

662. CHRYSOGONUM. Recept. paleaceum. Pappus 1-

phyllus, 3-dentatus. Cal. 5-phyllus. Sem. caly-

culo 4-phyllo involuta.

663. BALTIMORA. Recept. paleaceum. Pappus nullus. Flosc. radii 5. Cal. cylindricus, polyphyllus. Sem. 3-quetra.

664. PARTHENIUM. Recept. paleaceum, planum. Pappus nullus. Cal. 5-phyllus. Sem. obovata.

665. IVA. Recept. pilosum. Pappus nullus. Cor. radii 5.
Antheræ approximatæ, non coalitæ. Styli 2. longi.

Cor. radii 5. femineis minimis. Cal. 3-phyllus. 666. AMBROSIA. Monoica. Masc. Recept. nudum. Antheræ approximatæ, non coalitæ. Cal. 1-phyllus, hemisphæricus, multiflorus. Fem. Cal. 1-phyllus, subinteger aut 5-dentatus, 1-florus. Cor. nulla. Sty-

li 2. Nux e calyce indurato, 1-sperma.

667. XANTHIUM. Monoicum. Masc. Recept. paleaceum. Antheræ approximatæ, non coalitæ. Cal. polyphyllus, imbricatus, hemisphæricus, multiflorus. Fem. Cal. involucrum 2-phyllum, 2-florum. Cor. O. Stigm. 2. Drupa sicca, muricata, 2-fida. Nucleus 2-locularis.

#### V. SEGREGATA.

668. ELEPHANTEPUS. Recept. nudum. Pappus setaceus. Calyculus 4-florus. Corollulæ ligulatæ, hermaphroditæ.

## I. ÆQUALIS.

593. CICHORIUM. Gen. pl. 1251.

Intybus.

1. C. floribus axillaribus geminis subsessilibus, foliis runcinatis. Willd. sp. pl. 3. p. 1624.

Icon. Fl. dan. 907. Engl. bot. 539.

In fields and on road sides: Pensylvania, near Philadelphia. Most certainly introduced from Europe. 4. July, Aug. v. v. Flowers beautiful blue.

### 504. APARGIA. Gen. pl. 1232.

1. A. scapis ramosis declinatis squamosis, foliis lanceolatis autumnalis. runcinato-pinnatifidis glabriusculis. Willd. sp. pl. 3. p. 1550.

Leontodon autumnale Sp. pl. 1123.

Hedypnois autumnalis. Smith fl. brit. 2. p. 826.

Icon. Fl. dan. 501. Engl. bot. 830.

In pastures and on road sides: New England. 4. Aug. Sept. v. v Flowers golden-yellow, outside red. It is probably an introduced plant.

### 595. SCORZONERA. Gen. pl. 1230.

1. S. caule erecto 3-floro, pedunculis elongatis, foliis lan. pinnatifida. ceolatis acutissimis acute-pinnatifidis interdum rariter dentatis. Mich. fl. amer. 2. p. 89.

Leontodon carolinianum. Walt. fl. car, 192. In waste places: Carolina. Michaux. +.

### 596. LEONTODON. Gen. pl. 1237.

1. L. calyce exteriore reflexo, scapo unifloro, foliis runci- Taraxacum. natis glabris, laciniis lanceolatis dentatis. Willd. sp. pl. 3. p. 1544.

Icon. Fl. dan. 574. Engl. bot. 510.

Common in fields and grass plots; probably introduced. 24. April-July. v. v. Flowers yellow; it is generally known by the name of Dandelion. There is another species, found in shady wet woods, which I consider indigenous, but I have no materials in hand to give its description.

## 597. CHONDRILLA. Gen. pl. 1235.

1. C. glaberrimum, multicaule; foliis lineari-lanceolatis integerrimis, pedunculis 2-3. longissimis subaphyllis unifloris.

In Lower Virginia. J. Aug. Sept. v. v. Flowers bright yellow; pappus turns a pale red; the peduncles are from six to ten inches long, with a few linear, small leaves.

lævigata.

### 598. PRENANTHES. Gen. pl. 1236.

juncea.

- P. caule virgatim-ramosissimo sulcato glabro, foliis caulinis remotis subulatis brevissimis, ramulis unifloris, calycibus 5-fidis 5-floris: foliolis margine membranaceis.
  - On the banks of the Missouri. 21. v. s. Flowers purple; it has a striking resemblance to *Chondrilla juncea*; but the leaves are shorter, and the pappus entirely sessile; the radical leaves I have not seen.

altissima.

 P. caule ramoso, foliis trilobis petiolatis angulatis denticulatis margine scabris, racemis axillaribus, floribus nutantibus, calycibus sub-5-floris.—Willd. sp. pl. 3. p. 1537.

Icon. Pluk. alm. t. 317. f. 2.

In shady woods: Canada to Virginia. 24. July—Sept. v. v. Flowers yellow. Generally a very tall robust plant.

cordata.

- 3. P. caule superne paniculato, foliis petiolatis cordatis dentatis ciliatis, floralibus sessilibus oblongis integerrimis, panicula laxa racemiflora, floribus nutantibus, calycibus 6-fidis 6-floris.— Willd, hort, berol. 25.
  - In shady woods, about rocks; New York to Virginia. 24. Aug.—Oct. v. v. Flowers pale yellow. It is an intermediate species between the preceding and P. alba.

virgata.

4. P. glabra; caule simplicissimo, foliis omnibus lyratosinuatis, racemulis subsecundis, floribus pendulis, calycibus glabris 8-fidis 10-floris.—*Mich. fl. amer.* 2. p. 83.

P. autumnalis. Walt. fl. car. 193.

In sandy fields, near ditches: New Jersey to Carolina. 4. Aug. Sept. v.v. From three to six feet; flowers pale purple. This plant has a very fine effect in large plantations. Michaux quotes Gronovius; but his P. autumnalis belongs to P. rulicunda.

simplex.

5. P. caule simplicissimo, foliis superioribus lineari-lanceolatis integerrimis, radicalibus lanceolatis sinuatis, racemo terminali simplicissimo, floribus nutantibus, calycibus sub-9-floris.

P. virgata. Willd. sp. pl. 3. p. 1533.

In Carolina. Enslen. 4. July, Aug. v. s. in Herb. Enslen. About two feet high; flowers purple.





6. P. foliis lato-lanceolatis in petiolum attenuatis inæqualiter angulato-dentatis, panicula fasciculis terminalibus paucifloris nutantibus, calycibus hirsutis 10-12-fidis sub-20-floris .- Mich. fl. amer. 2. p. 84.

In Illinois and on the high mountains of Carolina.

chaux. 4. +.

7. P. foliis radicalibus angulato-hastatis dentatis sublobatis, caulinis subrotundo-ovatis dentatis petiolatis, summis lanceolatis, panicula laxa, fasciculis terminalibus nutantibus, calycibus 8-fidis 9-10-floris.-Willd. sp. pl. 3. p. 1536.

P. suavis. Parad. lond. 85.

Icon. Bot. mag. 1079.

In shady woods: New England to Carolina. 4. Aug. Sept. v. v. About two feet high; calyces purple, flowers white.

8. P. foliis ciliatis, radicalibus hastato-angulatis subintegerrimis, inferioribus obovatis basi attenuatis subangulatis, summis lanceolatis integerrimis, racemo simplici, floribus nutantibus. — Willd. sp. pl. 3. p. 1537.

P. alba β. Sp. pl. 1122.

P. autumnalis. Gron. fl. virg. 1. p. 89.

In shady woods: Pensylvania to Carolina. 24. Aug.— Oct. v. v. Resembles the preceding; not above eighteen inches high.

9. P. foliis dentatis asperis, radicalibus palmato-sinuatis, Serpentaria. caulinis longe petiolatis sinuato-pinnatifidis subtrilobis: lacinia intermedia 3-partita, summis lanceolatis, racemis terminalibus subpaniculatis brevibus nutantibus,

calycibus 8-fidis 12-floris.

On the mountains of Virginia and Carolina. U. Aug. -Oct. v. v. About two feet high; flowers pale This plant is known by the inhabitants under the name of Lion's-foot, and is in high esteem as a specific in curing the bite of the rattlesnake. During my travels through the mountains of Virginia, I had an opportunity of being a witness of the efficacy of this remedy. A man living in Cove-mountains, near the Sweet-springs, was bit in the foot by a Mocassin snake, a species considered the most dangerous. An inflammation and swelling of his whole leg took place immediately; but by taking the milky juice of this plant boiled in milk, inwardly, and applying to the wound the steeped leaves, which were very frequently changed, he was cured in a few days. As this plant deserves

crepidina.

alba.

rubicunda.

the attention of the physician, I have given a figure of it, it being frequently confounded with another species of this genus, which probably may not have quite so strong an effect, as the inhabitants are very careful to have the true Lion's-foot, in case of accidents happening, and usually call the other species of Prenanthes False Lion's-foot. Gronovius, in his Flora, pag. 113, mentions Dr. Witt's Snake-root under P. autumnalis or Willdenow's rubicunda, as a remedy for the bite of the rattlesnake; which shows that he had information of the use made of this plant, though he did not know the genuine species. Banksian Herbarium is a specimen of P. rubicunda, with the following note in the hand-writing of Clayton: "This is the rattlesnake-root that Dr. Witt supposes to be the best cure for the bite of the snake. a very odd plant, hardly two leaves alike upon a plant. as to shape or the indentings of the leaves."

racemosa.

- P. caule simplici, foliis omnibus indivisis lævibus, radicalibus ovali-lanceolatis, caulinis semiamplexicaulibus, racemo oblongo hirsutissimo, fasciculis cernuis, calycibus 8-9-partitis 9-12-floris. Mich. fl. amer. 2, p. 84.
  - In the northern parts of Canada. Michaux. +.

illinoensis.

- 11. P. caule simplici, foliisque asperriaris, foliis omnibus indivisis ovali-lanceolatiss, racemo longo, fasciculis subsessilibus erectis hirsutis. *Pers. syn. 2. p.* 366.
  - P. aspera. Mich. fl. amer. 2. p. 83.
  - In natural meadows in the Illinois country. Michaux. +.

## 599. LACTUCA. Gen. pl. 1234.

elongata.

- 1. L. foliis subtus lævibus, inferioribus runcinatis integerrimis amplexicaulibus, infimis dentatis, summis lanceolatis, floribus corymboso-paniculatis. Willd. enum. 817. Willd. sp. pl. 3. p. 1525.
  - L. longifolia. Mich. fl. amer. 2. p. 85?
  - In woods, on road sides, in fertile soil: Canada to Carolina. J. Aug. Sept. v. v. From three to six feet high. Flowers small, pale yellow.

graminifolia.

- 2. L. caule erecto simplici, foliis inermibus plerisque indivisis basi simplici longissime linearibus, panicula aphylla laxa, ramis rarifloris, floribus omnibus pedunculatis. Mich. ft. amer. 2. p. 85.
  - In Lower Carolina, Michaux. +.

### 600. SONCHUS. Gen. pl. 1233.

1. S. pedunculis calycibusque hispidis subumbellatis, foliis arvensis. runcinatis denticulatis basi cordatis, radice repente. Smith fl. brit. 2. p. 817. Willd. sp. pl. 3. p. 1512.

Icon. Engl. bot. 674. Curt. fl. lond. 53.

Among rubbish and in cultivated grounds: Pensylvania. 2. Aug. Sept. v. v. Flowers large, deep yellow.

2. S. pedunculis subtomentosis umbellatis, calycibus glabris, foliis oblongo-lanceolatis amplexicaulibus denticulatis Willd. sp. pl. 3. p. 1514. subsinuatis.

Icon. Fl. dan. 682. Curt. fl. lond. 58.

A common weed in most gardens and fields. O. July -Sept. v. v. Flowers yellow.

3. S. pedunculis hirsutis nudis, floribus paniculatis, foliis macrophyllus. lyratis basi cordatis subtus hirtis. Willd. sp. pl. 3. p. 1519.

S. canadensis. Frælich. in usteri annal. 1. p. 29.

Chondrilla sylvestris alta. Gronov. virg. 115. In shady low grounds, near springs: Pensylvania to Carolina. 4. Aug. Sept. v. v. From four to seven feet high; flowers blue, the size of Cichorium Intybus; root tuberous.

4. S. pedunculis hirsutis pudis, floribus racemosis bracteatis, foliis runcinatis basi sagittatis glabris subtus glaucis.

Willd. sp. pl. 3. p. 1519. S. montanus. Lam. encycl. 3. p. 401.

S. cæruleus. Smith fl. brit. 2. p. 815.

S. canadensis. Sp. pl. 1115.

Hieracium cæruleum. Scop. fl. carn. n. 976.

Icon. Fl. dan. 182.

In Canada. 4. Aug. Sept. v.s. Flowers blue, and sometimes white.

leucophæus. 5. S. pedunculis squamosis, floribus racemosis, foliis runcinatis acuminatis, caule paniculato-virgato. Willd. sp. pl. 3. p. 1520.

S. spicatus. Lam. encycl. 3. p. 401.

On the borders of woods, on road sides: New England to Virginia. J. July-Sept. v. v. Flowers small, white, tinged with blue.

6. S. pedunculis subsquamosis, floribus paniculatis, foliis lyrato-runcinatis denticulatis petiolatis.—Willd. sp. pl.3. p. 1520.

oleraceus.

alpinus.

floridanus.

On road sides, in shady woods: Virginia and Carolina. d. July—Sept. v. v. Flowers very small, blue. This plant has been used for curing the bite of the rattlesnake, in the same manner as Prenanthes Serpentaria, and is known by the name of Gall of the Earth.

acuminatus.

7. S. pedunculis subsquamosis, floribus paniculatis, foliis radicalibus subruncinatis, caulinis ovatis acuminatis petiolatis medio denticulatis. - Willd. sp. pl. 3. p. 1521.

Lactuca villosa. Jacq. hort. schoenb. 3. t. 367? In low shady places: Pensylvania to Virginia. J. Aug. Sept. v. v. Flowers small, blue.

pallidus.

8. S. racemo composito terminali, foliiis lanceolato-ensiformibus amplexicaulibus dentatis. Willd. sp. pl. 3. p. 1521.

Lactuca canadensis. Sp. pl. 1119.

Icon. Rob. ic. 148 & 151.

On road sides and in woods: Canada to New England. 1. July—Sept. v. v. Flowers small, yellow.

pulchellus. 9. S. pedunculis squamosis, floribus corymboso-racemosis, foliis caulinis cordato-amplexicaulibus ovato-oblongis acutis integerrimis glabris.

> On the banks of the Missouri. 4. Sept. v. s. Flowers large, beautiful blue.

## 601. HIERACIUM. Gen. pl. 1238.

pusillum.

1. H. pusillum, villosissimum; caule simplici erecto unifloro remote subbifoliato, foliis lanceolatis attenuatis acutis integerrimis, caulinis linearibus, calyce villosis-

simo.-Willd. sp. pl. 3. 1561.

Labrador. Colmaster. 4. July. v. s. in Herb. Dickson. A very small plant; flowers, as in all the In Labrador. Colmaster. following species, yellow, the size of a common daisy. It strongly resembles H. alpinum, and is probably only a diminutive variety thereof.

venosum.

2. H. scapo nudo corymboso-paniculato glabro, pedicellis filiformibus, foliis obovato-lanceolatis supra rariter pilosis, subtus nudis margine ciliatis glanduloso-denticulatis, venis coloratis, calycibus glabris.—Willd. sp. pl. 3. p. 1570.

In shady fertile woods: Canada to Carolina. 4. June -Aug. v. v. Flowers middle size, of a beautiful

yellow; the light green leaves are elegantly marked with blood-red veins. It is known by the name of Poor Robin's Plantain, and thought to possess considerable medicinal powers.

3. H. scapo folioso corymboso-paniculato, calveibus pedunculisque glanduloso-pilosis, foliis obovatis obtusis integerrimis, supra rariter strigoso-villosis, nervo medio subtus villosissimo. - Willd. sp. pl. 3. p. 1570.

Gronovii.

a. H. caule subunifoliato, panicula subfastigiata. Mich. fl. amer. 2. p. 87.

nudicaule.

β. H. caule parce folioso, panicula oblonga, Mich. l. c. H. marianum. Willd sp. pl. 3. p. 1572.

foliosum.

Icon. Pluk. mant. t. 320. f. 2.

In woods and on dry hills: Canada to Carolina. 4.

July, Aug. v. v Flowers small.

4. H. pilosum; caule erecto simplici folioso, corymbo paucifloro, foliis oblongo-lanceolatis attenuatis inferne paucidentatis, radicalibus petiolatis .- Willd. sp. pl. 3. p. 1577 ?

molle.

Icon. Jacq. austr. t. 119.

In Labrador. Colmaster. 2. July-Sept. v. s. in Herb. Dickson. Flowers middle size.

5. H. glabriusculum; caule erecto folioso paniculato inferne paniculatum. albo-lanato, pedicellis capillaribus, foliis lanceolatis nudis dentatis membranaceis. - Willd. sp. pl. 3. p. 1572.

In shady woods: Canada to Carolina; principally on the mountains. 2. July-Sept. v. v. Flowers

very small.

Kalmii.

6. H caule erecto multifloro glabro, foliis subsessilibus lanceolatis acuminatis extrorsum argute dentatis, pedunculis in apice caulis alternis subunifloris tomentosis.— Willd. sp. pl. 3. p. 1588.

In Pensylvania. Kalm. +. Flowers small, upright, leaves small. It is singular, that in no part of North America could I find a plant answering to this de-

scription given by Linnæus.

7. H. caule erecto simplici villoso, foliis sessilibus lanceolatis acutis glabris subtus pilosis margine divaricatoargute-dentatis versus apicem integerrimis: dentibus divaricatis, panicula subcorymbosa, calycibus pedunculisque tomentosis. Lambe t herb. ms. H. canadense. Mich. fl. amer. 2. p. 86?

virgatum.

In the western part of New York and Canada. VOL. II.

July—Sept. v. v.; v. s. in Herb. Lambert. Flowers middle size.

- fasciculation.
- 8. H. glabriusculum; caule erecto folioso simplici glabro; foliis sessilibus oblongis acutis argute-dentatis: dentibus elongatis, ramis paniculæ divaricatis brevibus, pedicellis subfasciculatis pubescentibus.

In Canada. Masson. 4. v. s. in Herb. Lambert. A tall robust plant; flowers middle size.

- scabrum.
- 9. H. hirsutissimum; caule erecto folioso hispido punctis fuscis scaberrimo, foliis oblongo-ovatis integris utrinque hirsutis, panicula simpliciuscula multiflora calycibusque glanduloso-hispidis, pedicellis brevibus divaricatis.—Mich. fl. amer. 2. p. 86.

In woods, in shady, rocky situations: Pensylvania.  $\mathcal{U}$ .

Aug. Sept. v.v. From three to five feet high; flowers small.

- macrophyllum.
- 10. H. altissimum; caule erecto folioso hispido sulcato, foliis cordato-semiamplexicaulibus ovato-oblongis remote grosse-dentatis nudiusculis, nervis venisque subtus pubescentibus, panicula divaricato-corymbosa, pedunculis elongatis nudis calycibusque glabris.

In Canada. 4. v. s. in Herb. Lambert. A very robust plant; leaves the largest of the genus; flowers large.

## 602. KRIGIA. Gen. pl. 1244.

virginica.

1. K. pusilla; foliis lyratis glaucis glabriusculis margine ciliatis, scapo 1-floro foliis duplo altiore, calyce sub-8-phyllo.—Willd. sp. pl. 3. p. 1618.

Hyoseris virginica. Sp. pl. 1138. Icon. Lam. journ. hist. nat. 1. t. 12.

In pastures, grassy hills, fields, and road sides: Canada to Florida.  $\odot$ . May—July. v.v. Flowers deep yellow, small.

## 603. HYOSERIS. Gen. pl. 1242.

- montana.
- H. glaberrima, procumbens; foliis lanceolatis integerrimis, scapo 1-floro. Mich. fl. amer. 2. p. 87.
   In the mountains of Carolina. Michaux. +.
- angustifolia.
- 2. H. foliis lineari-lanceolatis sensim acutissimis glabellis, dentibus rarioribus exertis, scapo 1-floro. Mich. fl. amer. 3. p. 87.

Hyoseris major. Walt. fl. car. 194.

In fields and pastures: Virginia and Carolina. . . . . . . July, Aug. v. v. Flowers large, bright yellow.

3. H. foliis lyratis basi acutis superne dilatatis apice truncatis hirsutis, scapis 1-floris.—Walt. fl. car. 194. In Carolina. Walter. +.

604. TROXIMON. Gært. carp. 2. p. 360. Pers. syn. 2. p. 360.

1. T. scapo unifloro, calycinis foliolis imbricatis cuspidatis, foliis linearibus integerrimis utrinque glaucis.

On the banks of the Missouri. 3. v. s.; v. v. in Hortis. Flowers bright yellow.

 T. glabrum, glaucum; caule erecto 2-3-fido subnudo, foliis glabris, radicalibus sublyratis, caulinis amplexicaulibus lanceolatis integerrimis glabris.—Pers. syn. 2. p. 260.

Hyoseris amplexicaulis. Mich. fl. amer. 2. p. 87. Hyoseris prenanthoides, Willd. sp. pl. 3. p. 1615.

Hyoseris biflora. Walt. fl. car. 194.

Tragopogon virginicum. Sp. pl. p. 1111. In meadows and moist shady woods: Pensylvania to Carolina. 4. July, Aug. v. v. About a foot high; flowers handsome, yellow.

605. STOKESIA. L'Herit. sert. angl. 27.

1. S. foliis lanceolatis, caule folioso, pedunculis axillaribus

Carthamus lævis. Hill. kew. p. 57. t. 5.
Icon. L'Herit. l. c. t. 38.
In South Carolina. 4. v. s. in Herb. Banks. Flowers

606. ARCTIUM. Gen. pl. 1253.

1. A. foliis caulinis cordatis petiolatis denticulatis, floribus paniculatis globosis, calycibus lævibus.— Willd. sp. pl. 3. p. 1631.

Icon. Fl. dan. 642. Engl. bot. 1228.

1-floris. - Willd. sp. pl. 3. p. 1703.

large, purple, very handsome.

On road sides, among rubbish, and in cultivated grounds; frequent. J. July, Aug. v. v. Flowers purple. Common Burdock. Has probably been introduced.

virginicum.

cyanea?

Lappa.

### 607. CNICUS. Gen. pl. 1255.

lanceolatus.

1. C. foliis decurrentibus hispidis pinnatifidis, laciniis bilobis divaricatis spinosis, calycibus ovatis arachnoideo-pube-scentibus, squamis lanceolatis spinosis patentibus. Willd. sp. pt. 3. p. 1666.

Carduus lanceolatus. Sp. pl. 1149.

On road sides; common every where. J. June—Sept. v. v. Flowers large, purple.

altissimus.

2. C. foliis sessilibus oblongo-lanceolatis scabris subtus tomentosis dentatis ciliatis, radicalibus pinnatifidis, calycibus bracteatis ovatis, squamis ovato-lanceolatis spinosis adpressis. Willd. sp. pl. 3. p. 1671.

Carduus altissimus. Sp. pl. 1154. Carduus virginianus. Walt. fl. car. 195.

Circium repandum. Mich. fl. amer. 2. p. 89.

Cirsium altissimum. Gron. fl. virg. 117. In old fields: Virginia and Carolina. 4. July—Sept.

In old fields: Virginia and Carolina. 4. July—Sept v. v. Flowers large, purple.

arvensis.

3. C. foliis sessilibus pinnatifidis glabriusculis ciliatis spinosis, caule paniculato, calycibus ovatis mucronatis, squamis lato-lanceolatis adpressis margine lanatis.

Carduus arvensis. Smith fl. lrit. 2. p. 850. Serratula arvensis. Willd. sp. pl. 3. p. 1646.

Icon. Fl. dan. 644. Engl. bot. 975. Mart. fl. rust. 132. In fields and on road sides: Canada and New England. 4. July—Sept. v. v. Flowers small, purple. It is one of the most troublesome weeds, and when once introduced on a plantation it is almost impossible to get rid of it.

muticus.

4. C. foliis omnibus pinnatifidis subtus lanuginosis: laciniis spinulosis sublanceolatis acutis, ramis in summitate pluribus nudiusculis unifloris, calyce globoso, squamis muticis.

Cirsium muticum. *Mich. fl. amer.* 2. p. 89. Carduus carolinianus. *Walt. fl. car.* 195.

In the mountains of Virginia and Carolina. July—

Sept. v. v. Flowers middle-sized, purple.

virginianus.

5. C. simpliciusculus; foliis sessilibus lanceolatis subtus cano-tomentosis remote dentatis, dentibus spinosis, floribus solitariis, calyce globoso, squamis mucronatis.

Carduus virginianus. Willd. sp. pl. 3. p. 1659. Cirsium virginianum. Mich. fl. amer. 2. p. 90.

Icon. Jacq. obs. bot. 4. t. 99.

In the mountains of Virginia and Carolina. 4. July—Sept. v. v. Flowers purple.

6. C. elatius; foliis sessilibus pinnatifidis acute incisis spinosissimis, involucro terminali unifloro polyphyllo: foliolis geminatim spinosissimis, calycibus inermibus.

Serratula discolor. Lam. encycl. 6. p. 565. Cirsium horridulum. Mich. fl. amer. 2. p. 90. Carduus spinosissimus. Walt. fl. car. 194.

On the banks of rivers and borders of woods: Pensylvania to Carolina. 4. July—Sept. v.v. Very tall; flowers large, pale yellow.

### 608. CARDUUS. Gen. pl. 1254.

 C. inermis; foliis decurrentibus lanceolatis pinnatifidopectinatis, pedunculis terminalibus longissimis unifloris subaphyllis, floribus defloratis cernuis calycinis squamis linearibus patulis.—Willd. sp. pl. 3. p. 1655.

In Pensylvania. C. +. Flowers purple, the size of Arctium Lappa. It probably is a species of Cnicus.

## 609. LIATRIS. Gen. pl. 1263.

\* Spicatæ seu racemosæ; bulbosæ.

1. L. caule simplici, elato; foliis linearibus glabris basi ciliatis nervosis et punctatis, spica longissima, floribus sessilibus, squamis calycinis lineari-oblongis obtusis appressis.—Mich. fl. amer. 2. p. 91.

L. spicata. Willd. sp. pl. 3. p. 1636.

Anonymos graminifolius. Walt. fl. car. 197.

Serratula spicata. Sp. pl. 1147.

Icon. Bot. rep. 401. Pluk. alm. t. 424. f. 6.

In natural meadows: Pensylvania to Carolina. 4. Aug. —Oct. v. v. From three to six feet high; flowers, as all the following species, purple, in very long and close spikes.

 L. caule simplici hirsuto, foliis strictis angusto-linearibus pubescentibus, spica longa, floribus confertim sessilibus, calycibus appressis superne squarrosis.—Mich. fl. amer. 2. p. 91.

Anonymos pilosa. Walt. fl. car. 197.

Icon. Dill. elth. t. 72. f. 83.

In mountain meadows: Virginia, Illinois, and Carolina.
4. Aug.—Oct. v.v. From two to four feet high;
flowers smaller than No. 1.

horridulus.

pectinatus.

macrostachya.

pycnostachya.

- graminifolia. 3. L. caule simplici glabro, foliis linearibus longissimis glabris nervosis margine scabriusculis costa media interne subpilosis, floribus spicatis remotiusculis subsessilibus, calycinis squamis oblongis obtusis mucronatis ciliatis appressis, interioribus coloratis.—Willd. sp. pl. 3. p. 1636 exclus. syn. Walteri.

Serratula compta. Herb Banks. mss.

- In South Carolina and Georgia. Bartram. 4. Aug.-Oct. v. v. About two or three feet high; flowers the size of No. 2; leaves very long and narrow.
- heterophylla.
- 4. L. caule simplici glabro, foliis lanceolatis glabris lævibus: superioribus lineari-lanceolatis multoties minoribus, calycibus spicatis brevissime pedunculatis subsquarrosis: squamis lanceolatis acutis nudis .- Willd. enum. 503.

L. varia. Herb. Banks. mss.

In South Carolina and Georgia. Fraser. Bartram. 4. Aug .- Oct. v. s. in Herb. Banks. nec non Lambert. Flowers the size of the preceding.

aspera,

5. L. caule subramoso scabro-pubescente, foliis linearilanceolatis asperrimis, calycibus brevibus spicatis distincte alternis solitariis sessilibus: squamis rotundatoobtusis conniventibus. - Mich. fl. amer. 2. p. 92.

Anonymos ramosus. Walt. fl. car. 198.

In South Carolina and Illinois. Walter. Michaux. 1. Aug.—Oct. v. s. Flowers larger than any of the foregoing species.

cylindracea.

- 6. L. gracilis, tota hirsuta; foliis gramineis, spica rariflora, calycibus subsessilibus cylindraceis paucifloris, squamis apice rotundatis abrupte mucronatis. Mich. fl. amer. 2.
  - In woods and meadows of South Carolina and Illinois. 4. Aug. Sept. v. s. in Herb. Fraser.

pilosa.

7. L. caule simplici pubescente, foliis linearibus pilosis ciliatis, calveibus racemosis laxiusculis: squamis linearioblongis obtusiusculis, pedicellis bracteolatis. - Willd. sp. pl. 3. p. 1636.

Anonymos ciliatus. Walt. fl. car. 197.

In pine-barrens and sandy fields: New Jersey to Carolina. 4. Sept.—Nov. v. v. A low species; flowers the size of No. 2.

gracilis.

8. L. caule simplici glabro, foliis linearibus nudis, calycibus racemosis subglobosis: squamis oblongis obtusiusculis appressis, pedicellis elongatis patentibus squamoso bracteolatis.

In Georgia. Bartram. Aug.-Oct. v. s. in Herb. Banks. Flowers smaller than any preceding species.

9. L. caule simplici villoso, foliis linearibus subfalcatis scabro-punctatis, spica subfoliosa, pedicellis brevibus, calycinis squamis intimis ligulatis coloratis .- Willd. sp. pl. 3. p. 1635.

Serratula speciosa. Ait. kew. 3. p. 138. Stæhelina elegans. Walt. fl. car. 202.

Eupatorium speciosum. Vent. hort. cels. 79.

In sandy fields: Carolina to Florida. 24. Sept.—Nov. v. v. A beautiful perennial; flowers in long close spikes, purplish-red.

10. L. caule simplici pubescente, foliis lævibus: inferioribus petiolatis lato-lanceolatis, superioribus lanceolato-linearibus, calycibus racemosis solitariis alternis subglobosis: squamis ovatis acutiusculis erectis, margine ciliatis .- Mich. fl. amer. 2. p. 92.

On high mountains of Virginia and Carolina. 4. Aug. --Oct. v. v. Flowers large and handsome.

11. L. caule simplici subpubescente, foliis lanceolatis utrinque attenuatis glabris margine scabris, calycibus racemosis alternis distantibus inferne squarrosis; squamis spathulatis margine membranaceo coloratis.-Willd. sp. pl. 3. p. 1635.

L. squarrulosa. Mich. fl. amer. 2. p. 92.

Serratula scariosa. Sp. pl. 1147.

Icon. Pluk alm. t. 177. f. 4. In mountain meadows: Virginia to Carolina. 4. Aug. —Oct. v. v. Flowers the size of No. 10.

12. L. caule simplici pubescente, foliis longissime linearibus nervosis margine scabriusculis, racemis paucifloris foliosis, calycinis squamis superne foliaceis lanceolatis rigidis patentibus.—Willd. sp. pl. 3. p. 1634.

Serratula squarrosa. Hort. cliff. 392. Pteronia caroliniana. Walt. fl. car. 202.

Icon. Dill. elth. t. 71. f. 82.

In sandy woods and fields: Virginia, Kentucky, and Carolina. 2. Sept. Oct. v. v. Flowers large, very handsome. This and the preceding are known among the inhabitants of those countries by the name of Rattlesnake's Master. In case of being bit by this horrible animal, they bruise the bulbs of this plant and apply it to the wound, while, at the same time, they make elegans.

sphæroidea.

scariosa.

squarrosa.

a decoction of it in milk, which is taken inwardly, in the same manner as I have mentioned under *Prenan*thes serpentaria.

\*\* Paniculatæ seu corymbosæ; non bulbosæ.

- pauciflora.
- 13. L. caule simplici glabro; foliis linearibus, panicula virgata foliosa, ramis brevibus paucifloris, calycibus subsessilibus secundis 3—5-floris: squamis erectis lanceolatis acutis glabris.

In Georgia. Bartram. 4. v. s. in Herb. Banks.

Flowers small, the size of No. 4.

- paniculata.
- 14. L. caule simplici panicula calycibusque piloso-viscosis, foliis inferioribus lanceolatis attenuatis nervosis glabris: caulinis minoribus sessilibus, panicula coarctata fasciculata, calycibus sub-5-floris: squamis lanceolatis acutiusculis.— Willd. sp. pl. 3. p. 1637.

Anonymos paniculatus. Walt. fl. car. 198.

- In pine-barrens: Virginia to Florida. 4. Aug.—Oct. v. s. in Herb. Enslen. Flowers the smallest of all the species here enumerated.
- odoratissima. 15. L. glaberrima; caule simplici; foliis radicalibus oblongis, caulinis amplexicaulibus, panicula corymbosa laxodivaricata, calycibus sub-8-floris: squamis lanceolatis obtusiusculis.— Willd. sp. pl. 3. p. 1637.

Anonymos odoratissimus. Walt. fl. car. 198.

Icon. Bot. rep. 633.

- In open swamps: Carolina to Florida. 4. Sept. Oct. v. v. Flowers a little larger than the preceding. It is generally called Carolina Vanilla-plant. The leaves, when dry, give a very agreeable scent, resembling somewhat that of Vanilla, which they maintain for years if kept dry and inclosed.
- tomentosa. 16. L. caule simplicissimo foliisque cuneato-lanceolatis hirsutis, corymbo paucifloro depresso divaricato, ramis 1-2 floris, calveibus tomentosis: squamis ovatis acutis. Mich. fl. amer. 2. p. 93.

In open swamps: Virginia and North Carolina. 24. Aug.—Oct. v. v. About eighteen inches high;

flowers the size of No. 1.

bellidifolia. 17. L. pumila, glabella; foliis cuneato-oblanceolatis, corymbo inæquali, floribus omnibus longiuscule pedicellatis, calycinis squamis oblongo-obovalibus obtusis.

Mich. fl. amer. 2. p. 93.

Anonymos uniflorus. Walt. fl. car. 198.

In dry gravelly fields of North Carolina. Michaux. 4. +.

## 610 VERNONIA. Gen. pl. 1262.

1. V. caule simplici nudiusculo, foliis serratis: radicalibus oblongo-ovatis, caulinis lanceolatis, corymbo paniculato. - Mich. fl. amer. 2. p. 94.

oligophylla.

Chrysocoma acaulis, Walt. ft. car. 196.

a. V. utroque flore pedunculato. B. V. altero flore subsessili.

verna. autum nalis.

In South Carolina 4. v. s. in Herb. Walter. Flowers, as all the following, purple,

2. V. caule simplici, foliis crebris longe angusteque linearibus subintegris, corymbo subambellato, calycinis squamis rigide mucronaiis. Mich. fl. amer. 2. p. 94.

angustifolia.

Chrysocoma angustifolia. Walt. fl. car 196

In barren sandy woods: Virginia to Georgia. 4. Aug. Sept. v. s. in Herb. Enslen. Flowers the size and figure of V. præalta.

3. V. foliis longo-linearibus rariter serratis, floribus corymbosis erecto approximatis, calycibus ovoideis lævibus, squamis muticis. Mich. fl. amer. 2. p. 85.

In natural meadows: Illinois. Michaux. Virginia. Ph. 4. Aug. - Oct. v. v. Flowers small.

fasciculata.

4. V. caule altissimo anguloso dense pubescente, foliis crebris lanceolatis acute serratis subtus pubescentibus, corymbo fastigiato, calycinis squamis ovatis acutis muticis. -- Willd. sp. pl. 3. p. 1633.

præalta.

Serratula præalta. Sp. pl. 1146.

Chrysocoma tomentosa. Walt. fl. car. 106.

Icon Dill. elth. t. 264. f. 343. Mill. ic. 234. Pluk. alm. t. 280. f. 6.

On road sides and borders of woods: New England to Carolina. 4. Aug.-Oct. v. v. A tail roughlooking plant.

5. V. altissima; foliis crebris lanceolatis serrulatis scabris, noveboracencoryrabo fastigiato, calycinis squamis apice filiformibus.— Willd. sp. pl. 3. p. 1632.

Serratula noveboracensis. Hort. cliff. 392.

Chrysocoma gigantea. Walt, fl. car. 196.

Icon. Dill. elth. t. 263. f. 342. Pluk. alm. t. 109. f. 3. On road sides and old pastures: Canada to Carolina. 4. Aug. - Oct. v. v. About five feet high.

## 611. KUHNIA. Gen. pl. 1272.

Critonia. Gært. carp. 2. p. 411. Dalea. Brown. jam. 314.

eupatorioides. 1. K. glabra; foliis petiolatis lato-lanceolatis serratis, corymbo terminali paucifloro coarctato. - Willd. sp. pl. 3. p. 1772.

Eupatorium alternifolium. Ard. spec. 2. p. 40. t. 20. Icon. Linn. fil. dec. t. 11. Pluk. alm. t. 87. f. 2.

In shady woods, about rocks: Pensylvania to Virginia. 2. Aug. Sept. v. v. Flowers white; resembles an Eupatorium exceedingly.

Critonia. 2. K. pubescens; foliis angusto-lanceolatis inferne subdentatis petiolatis subtus punctatis: superioribus linearibus integerrimis sessilibus, panicula terminali divaricata.— Willd. sp. pl. 3. p. 1773.

Critonia Kuhnia. Mich. fl. amer. 2. p. 101. Icon. Gært. carp. 2. t. 174. f. 7.

On high mountains of Pensylvania and Virginia. 24. Aug. Sept. v.v. Flowers pale yellow.

## 612. EUPATORIUM. Gen. pl. 1272.

\* Calycibus 3 - 5-floris.

fæniculaceum.

1. E. caule paniculato, foliis glabris inferioribus pinnatis, superioribus fasciculatis, omnibus filiformibus.-Willd. sp. pl. 3. p. 1750.

E. fœniculoides. Walt. fl. car. 199.

Chrysocoma capillacea. Mich. fl. amer. 2. p. 101.

In fields and on road sides, near the sea-coast: Virginia to Florida. 4. Aug.-Oct. v. v. From two to five feet high, resembling an Artemisia very much; flowers in great abundance, small, pale yellow.

coronopifoli--um.

2. E. caule paniculato, foliis infimis pinnatifidis, reliquis indivisis fasciculatis linearibus integerrimis. Willd. sp. pl. 3. p. 1750.

E. compositifolium. Walt. fl. car. 199.

Chrysocoma coronopifolia. Mich. fl. amer. 2. p. 102. In dry woods, on road sides: Carolina. 4. Aug. Sept. v. v. Flowers white, double the size of the preceding.

hyssopifolium.

3. E. foliis oppositis subverticillatis linearibus integerrimis pubescentibus trinervibus punctatis, radicalibus subdentatis. Willd. sp. pl. 3. p. 1749.

Icon. Dill. elth t. 115. f. 140. Pluk. alm. t. 88. f. 2. In dry pine-barrens and sandy fields: New Jersey to Ca-2. Aug.—Oct. v. v. About a foot high; leaves small: flowers white, as all the following are, unless a different colour is mentioned.

4. E. foliis lineari-lanceolatis denticulatis obsolete 3-nervi- linearifolium. bus pubescentibus, inferioribus oppositis verticillatis, superioribus alternis. Willd. sp. pl. 3. p. 1750. Walt. fl. car. 199.

In low sandy fields: New Jersey to Carolina. 4. Aug. -Nov. v. v. The calyx is covered with resinous

dots.

5. E. foliis sessilibus amplexicaulibus distinctis ovato-lan- sessilifolium. ceolatis basi rotundatis serratis glaberrimis, caule glabriusculo. Willd. sp. pl. 3. p. 1751.

About rocks, particularly lime-stone, and throughout the Allegany mountains. 4. Aug. Sept. v. v.

About two feet high; very smooth.

truncatum. 6. E. foliis sessilibus amplexicaulibus distinctis lanceolatis basi truncatis serratis glabriusculis, caule pubescente. Willd. sp. pl. 3. p. 1751.

In shady woods, about rocks: Pensylvania to Virginia. 4. July-Oct. v. v. Resembles the preceding

species.

7. E. foliis subsessilibus oblongo-lanceolatis scabriusculis serratis, calycinis squamis interioribus elongatis lanceolatis scariosis coloratis. Willd. sp. pl. 3. p. 1752. In woods and swamps: Pensylvania and Virginia.

Aug.—Oct. v. v. About eighteen inches high.

8. E. foliis sessilibus distinctis oblongo-lanceolatis scabris lanceolatum. basi profunde serratis, calycinis squamis concoloribus. -Willd. sp. pl. 3. p. 1752.

In low copses and dry swamps: Pensylvania to Virgi-4. Aug.-Nov. v. v. Resembles the preceding species.

9. E. foliis sessilibus distinctis ovatis scabris, superioribus teucrifolium. basi grosse serratis, summis integerrimis. Willd. sp. pl. 3. p. 1753.

E. pilosum. Walt. fl. car. 199.

E. verbenæfolium. Mich. fl. amer. 2. p. 98.

Icon. Willd. hort. berol. 32

In swamps and low woods: New England to Carolina. 4. Aug.—Nov. v. v. About two feet high.

album.

cuneifolium. 10. E. foliis petiolatis obovato-lanceolatis apice subserratis triplinervibus utrinque pubescentibus. Willd. sp. pl. 3.
p. 1753.

E. Marrubium. Walt. fl. car. 199.

In low sandy fields: Virginia and Carolina. 4. Aug.—Oct. v. v. Not above a foot high.

melissoides. 11. E. foliis petiolatis ovatis obtusiusculis obtuse serratis venosis glabriusculis. Willd. sp. pl. 3. p. 1754.

In Pensylvania. 4. Aug.—Oct. +. Resembles No. 9; but the leaves are smaller, petiolated, and smooth.

votundifoli12. E. foliis sessilibus distinctis subrotundo-cordatis obtuse
um.

serratis venosis, calycinis squamis acuminatis.—Willd.

sp. pl. 3. p. 1754.

Icon. Pluk. alm. t. 88. f. 4.

In swamps and shady woods: Canada to Carolina. 4. Aug.—Nov. v. v. About a foot or eighteen inches high.

pubescens.

13. E. foliis sessilibus distinctis ovatis scabris venosis, inferioribus duplicato-serratis, superioribus subserratis, caule paniculato pubescente, ramis fastigiatis. Willd. sp. pl. 3. p. 1755.

E. glandulosum. Mich. fl. amer. 2. p. 98?

In dry sandy woods: New Jersey to Carolina. 4. Aug. —Oct. v. v. Not above two feet high.

ceanothifoli- 14. E. foliis petiolatis ovatis acuminatis dentatis triplinervium. bus glabris. Willd. sp. pl. 3. p. 1755.

In shady woods, about rocks: New York to Virginia. 24. Aug.—Nov. v. v. Resembles Ceanothus americanus in its foliage exceedingly.

altissimum. 15. E. foliis subsessilibus lanceolatis 3-nervibus utrinque attenuatis pubescentibus, inferioribus medio serratis.

Willd. sp. pl. 3. p. 1754.

Icon. Jacq. hort. vind. 164.
In low sandy woods: Pensylvania and Virginia, and on the banks of the Mississippi and Missouri. 4. Aug.
Oct. v. v. From three to seven feet high.

amœnum.

16. E. foliis brevi-petiolatis oppositis ternatisque lanceolatooblongis utrinque acutis serratis glabriusculis subrugosis subtus reticulato-venosis, panicula corymboso-fasciculata confertiflora, calycinis squamis oblongis acutiusculis coloratis.

On the New Jersey mountains. 4. Sept. Oct. v. v.

About two feet high; stem solid, smooth, purple; peduncles tomentose; flowers small, but very closely collected in a corymbose panicle, of a beautiful pale purple inclining to flesh colour.

17. E. foliis petiolatis ternis quaternisve ovatis utrinque attenuatis serratis scabriusculis. Willd. sp. pl. 3. p. 1756. In swamps and on the banks of rivers: New York to

Virginia. 2. Aug.—Oct. v. v. A tall plant without branches.

18. E. glabellum: foliis quaternis ovali-lanceolatis utrinque acuminatis subfalcatis rariter serratis, squamis calycinis extimis brevibus ovalibus.—Mich. fl. amer. 2. p. 99.

On the banks of the Ohio and Scioto rivers. Michaux.

2. +. A tall plant, resembling E. album.

\*\* Calycibus plus quam 5-floris.

19. E. foliis petiolatis quaternis quinisve ovato-lanceolatis serratis rugoso-venosis scabriusculis, caule fistuloso. Willd. sp. pl. 3. p. 1759.

Icon. Rob. ic. 217. Corn. canad. t. 72. Moris. hist. 3. s. 7. t. 13. f. 4. Dod. mem. t. 217.

In swamps, wet woods, and on the banks of rivulets: Canada to Virginia. 2. Aug.—Oct. v. v. Very tall; flowers purple.

20. E. foliis petiolatis quaternis quinisve ovato-lanceolatis inæqualiter serratis subtus pubescentibus, caule solido sulcato. Willd. sp. pl. 3. p. 1760.

Icon. Herm. parad. t. 158. Moris. hist. 3. s. 7. t. 18.

In swamps and near ponds and rivulets: Canada to Carolina. 4. Aug. - Oct. v. v. Stem marked with purple lines, not so tall as the preceding species; flowers purple.

21. E. foliis petiolatis quaternis quinisve ovatis acuminatis serratis utrinque scabris, caule solido tereti. Willd. enum. 853.

E. maculatum. Hortul.

In the Blue-mountains: New Jersey and Pensylvania. 4. Aug.—Oct. v. v. Not so tall as the preceding; flowers purple, very ornamental.

22. E. foliis petiolatis ternis quaternisve ovato-lanceolatis, verticillatum. basi cuneatis inæqualiter serratis glabriusculis, caule solido lævi. Willd. sp. pl. 3. p. 1760.

trifoliatum.

falcalum.

purpureum.

maculatum.

punctatum.

On the banks of rivers and in swamps; frequent: New York to Carolina. v. v. From four to six feet high; flowers purple. It differs from No. 18 in its stem, broader and smoother leaves, and white calyces; from No. 19 in its stem and smooth leaves.

perfoliatum. 23. E. foliis connato-perfoliatis oblongis sursum angustatis serratis rugosis subtus tomentosis, caule villoso.— Willd. sp. pl. 3. p. 1761.

E. connatum. Mich fl. amer. 2. p. 99.

Icon. Pluk. alm. t. 87. f. 6.

In low meadows and about springs: Canada to Florida.

24. Aug.—Oct v. v. From two to three feet high; flowers white. The whole plant is exceedingly bitter, and has been used for ages past by the natives and inhabitants in intermitting fevers. It is generally known by the name of Thorough-wort or Bone-set. I have stated a case of its efficacy in those diseases in a letter to William Royston, Esq. who inserted it in the Medical and Physical Journal. In which I stated the benefits derived from this plant, by myself and others during my stay in the neighbourhood of lake Ontario, when both the influenza and lake fever (similar to the yellow fever) were raging among the inhabitants. It is generally used as a decoction, or, which I consider the more effectual way, as an infusion in gin or rum.

coelestinum. 24. E. foliis petiolatis cordato-ovatis obtusiusculis triplinervibus obtuse serratis, floribus corymbosis. Willd. sp. pl. 3. p. 1764.

Icon. Dill. elth. t. 114. f. 159.

In mountain-woods of Virginia to Carolina. 4. Aug. —Ct. v. v. Flowers large, beautiful blue.

aromaticum. 25. E. foliis petiolatis ovatis acutis trinervibus obtuse-serratis glabris, caule superne paniculato, floribus corymbosis, calycibus simplicibus. Willd. sp. pl. 3. p. 1765.

Icon. Pluk. alm. t. 88. f. 3.

In woods and on the banks of rivers: Pensylvania to Florida. 24 Aug.—Oct. v.v. Flowers large, clear white, sweet-scented.

ageratoides. 26. E. foliis petiolatis ovatis acuminatis trinervibus inæqualiter grosse serratis glabris, corymbo multifloro divaricato, calycibus subsimplicibus. Willd sp. pl. 3. p. 1765.

E. urticæfolium. Mich. fl. amer. 2. p. 100. Ageratum altissimum. Sp. pl. ed. 2. p. 1176.

Icon. Moris. hist. 3. s. 7. t. 18. f. 11.

### SYNGENESIA ÆQUALIS. Eupatorium.

The most common species in the Allegany mountains, and near the sea-coast from Canada to Pensylvania. 2. Aug.—Oct. v. v. About two feet high; flowers white.

27. E. foliis longe-petiolatis subdeltoideo-lanceolatis rariter serratis, calycinis squamis tomentosis obtusis, caule pulverulento.—Mich. fl. amer. 2. p. 100.

On the sea-coast of Carolina, among Scirpus, &c. Michaux. 4. Sept .- Nov. +. Flowers white.

serotinum.

scandens.

## 613. MIKANIA. Willd. sp. pl. 3. p. 1742.

1. M. caule scandente glabro, foliis cordatis repando-dentatis acuminatis lobis divaricatis inæqualibus, floribus corymbosis. Willd. sp. pl. 3. p. 1743.

Eupatorium scandens. Sp. pl. 1171.

Icon. Jacq. ic. rar. 1. t. 169. Pluk. alm. t. 163. f. 3.

On the banks of rivers and ditches: Canada to Carolina. 2. July-Sept. v. v. A twining plant; flowers very numerous, white with a tinge of blue. There is another species, found in Carolina, with flesh-coloured fragrant flowers, but I have no materials at hand to give its description.

nudata.

## 614. CHRYSOCOMA. Gen. pl. 1019.

1. C. foliis radicalibus spathulato-lanceolatis, caulinis linearibus rariter sparsis, caule subnudo, corymbo composito fastigiato, calycibus oblongis 3-4-floris. Mich.

fl. amer. 2. p. 101.

In low grounds, in the forests of North and South Ca-2. Aug.-Oct. v. v. A plant of singular appearance, the stem almost leafless; the large flat corymbus consists of small flowers, entirely yellow; even the calyx is deeply coloured.

2. C. glabra; foliis linearibus 3-nervibus punctato-scabris, dracunculoifloribus corymbosis congestis, calycibus laxis 5-floris glabris. - Lam. encycl. 2. p. 192.

C. biflora. Sp. pl. 1178. secundum specimen Pallasianum

in Herbario Lambertiano asservatum.

On high cliffs on the banks of the Missouri. M. Lewis. 4. Oct. v. s. in Herb. Lewis. From one to two feet high; flowers large, yellow.

3. C. calycibus pedunculis foliisque sublanato-pubescenti-

des.

nauseosa.

bus; foliis angustissime linearibus, corymbo laxiusculo, calycibus laxis 5 floris: squamis interioribus divaricatis glabris.—Pallas. mss. in Herb. Lambert.

On the banks of the Missouri, M. Lewis. 4. Oct. v. s. in Herb. Lewis. Flowers yellow, somewhat smaller than the preceding.

## 615. CACALIA. Gen. pl. 1275.

suaveolens.

1. C. caule herbaceo, foliis petiolatis hastato-sagittatis serratis glabris concoloribus, floribus corymbosis erectis, calycibus multifloris.—Willd, sp. pl. 3. p. 1734.

On the banks of rivers: Pensylvania to Carolina. 4. Aug.—Oct. v.v. From three to four feet high;

flowers white; anthers yellow.

atriplicifolia.

 C. caule herbaceo, foliis petiolatis glabris subtus glaucis, radicalibus cordatis dentatis, caulinis rhombeis utrinque subbidentatis, floribus corymbosis erectis, calycibus 5-floris.—Willd. sp. pl. 3. p. 1734.

Icon. Pluk. alm. t. 101. f. 1. Moris. hist. 3. s. 7. t. 15.

f. 7.

In low and overflowed places, near rivers: Canada to Carolina. 4. Aug.—Oct. v. v. Flowers white, considerably smaller than the preceding.

reniformis.

3. C. caule herbaceo, foliis petiolatis glabris subtus ad venas pilosis, radicalibus amplis cordatis reniformibus repando-dentatis, caulinis oblongis dentatis basi cuneatis integerrimis, corymbis fastigiatis, calycibus multifloris. Willd. sp. pl. 3. p. 1735.

On the banks of rivers: Pensylvania to Virginia. 4. Aug.—Oct. v. v. From five to ten feet high; flow-

ers white.

## 616. SPARGANOPHORUS. Gært. carp. 2. p. 395.

verticillatus.

 S. foliis setaceo-linearibus verticillatis, caule subunifloro, pappo campanulato 5-dentato.—Mich. ft. amer. 2. p. 95.

Ethulia uniflora. Walt. fl. car. 195. Willd. sp pl. 3.

p. 1742.

Icon. Mich. fl. amer. 2. t. 42.

In overflowed swamps and rivulets: New Jersey, Carolina, and Florida. 4. Aug.—Oct. v. v. Floating in the water; flowers purple, the size of a large daisy.

## 617. HYMENOPAPPUS. L'Herit. monog. Mich. fl. amer. 2. p. 103.

#### Rothia. Lam. illustr. t. 667.

1. H. candicanti-lanuginosus; foliis profunde pinnatifidis, laciniis lineari-oblongis subdentatis, floribus corymboso-paniculatis .- Mich. fl. amer. 2. p. 104.

Rothia caroliniensis. Journ. de hist. not. no. 1. cum icone. In Carolina. O. +. Flowers white, the size of Lia-

tris scariosa.

## 618. MELANANTHERA. Mich. fl. amer. 2. p. 106.

1. M. foliis triplinerviis ovatis acuminatis scabris inæqualiter dentatis, inferioribus subcordatis, superioribus hastato-trilobis, pedunculis terminalibus corymbosis, paleis receptaculi lanceolatis acuminatis.—Mich. fl. amer. 2. p. 107.

Bidens nivea. Willd. sp. pl. 3. p. 1721. Athanasia hastata. Walt. fl. car. 201.

a. M. foliis profunde trilobatis. Icon. Dill. elth. t. 47. f. 55.

β. M. foliis leviter lobatis panduræformibus.

Icon. Dill. elth. t. 46. f. 54.

On the banks of rivers: Carolina to Florida. 4. Aug. -Oct. v.v. Flowers large, white.

scabiosæus.

hastata.

lobata.

pandurata.

# 619. MARSHALLIA. Gen. pl.....

Trattenickia. Pers. syn. 2. p. 403. Persoonia. Mich. fl. amer. 2. p. 104.

1. M. caule simplici inferne folioso superne nudato, foliis lanceolata. longo-lanceolatis, calycinis foliolis obtusis, paleis spa-

Persoonia lanceolata. Mich. fl. amer. 2. p. 105.

Athanasia obovata. Walt. fl. car. 201.

In the Carolina mountains. 4. v.s. in Herb. Walter. Flowers resembling a Scabious, pale purple, and like all the following very ornamental.

2. M. caule simplici, foliis lanceolato-ovalibus acuminatis trinervibus, infimis vaginantibus, calycinis foliolis acutis, paleis angusto-linearibus.

Persoonia latifolia. Mich. fl. amer. 2. p. 105. t. 43. VOL. II.

latifolia.

Athanasia trinervia. Walt. fl. car. 201.

In the Carolina mountains. 4. v.s. in Herb. Walter.

angustifolia.

3. M. caule ramoso, foliis infimis angusto-lanceolatis, rameis angustissime linearibus, calycinis foliolis rigidis superne angustatis acutissimis, paleis setaceis.

Persoonia angustifolia. Mich. fl. amer. 2. p. 106.

Athanasia graminifolia. Walt. fl. car. 200.

In Tennassee. Michaux. In swamps, near Wilmington, North Carolina. Ph. 4. June, July. v. v. The handsomest species of this genus.

## 620. SANTOLINA. Gen. pl. 1278.

suaveolens.

 S. glabra; caule corymboso-ramoso, foliis subbipinnatifidis, laciniis acutis linearibus, pedunculis terminalibus unifloris.

On the banks of the Kooskoosky. M. Lewis. O. June—Aug. v. v.; v. s. in Herb. Lewis. A small plant of an agreeable sweet scent; flowers yellow.

Planta glabra. Caulis erectus, ramosus: rami corymbosi uniflori. Folia sessilia tenuissime pinnatifida, laciniis inciso-2-3-fidis, omnibus acutis angusto-linearibus. Pedunculi terminales, solitarii, uniflori. Calyx hemisphæricus, subimbricato-polyphyllus: foliolis ovalibus, obtusis, glabris, viridibus, margine albido-membranaceis, laceris. Cor. discoidea. Discus globosus, luteus. Corollulæ germine oblique insertæ, tubulosæ, 4-fidæ? laciniis erectis. Genitalia inclusa. Receptaculum conicum, paleaceum. Paleis sparsis, oblongis, obtusis. Pappus nullus. Semina oblique obovata.

# II. SUPERFLUA.

621. ARTEMISIA. Gen. pl. 1281.

\* Foliis simplicibus.

integrifolia.

1. A. cano-tomentosa; caule erecto virgato; foliis linearilanceolatis acuminatis subtus tomentosis subdentatis, floribus ovatis subsessilibus erectis tomentosis.—Willd. sp. pl. 3. p. 1846. Icon, Gmel. ft. sib. 2. t. 48. f. 1 & 2.

On the cliffs and dry savannahs of the Missouri. M. Lewis. 4. Oct. v. s. in Herb. Lewis. About three feet high.

2. A. glabra; foliis lineari-lanceolatis utrinque attenuatis, *Dracunculus*. floribus subrotundis pedunculatis erectis.—*Willd. sp.* pl. 3. p. 1848.

Icon. Gmel. fl. sib. 2. t. 59 & 60. f. 1.

On the Missouri. M. Lewis. 4. Aug.—Oct. v. s. in Herb. Lewis.

3. A. canescens; foliis longe lineari-lanceolatis acutis nervosis utrinque canis: inferioribus cuneiformibus acute-3-lobis, floribus ovalibus glomeratis sessilibus axillaribus.

On the Missouri. M. Lewis. 4. Sept.—Nov. v. s. in Herb. Lewis.

4. A. canescens: foliis inferioribus cuneiformibus obtusis trilobis, superioribus linearibus obtusis, floribus globosis pedunculatis cernuis. Willd. sp. pl. 3. p. 1848.

Icon. Gmel. fl. sib. 2. t. 61. f. 1 & 2. Pluk. amalth. t. 353. f. 5.

On the north-west coast. 4. Sept. Oct. v. s. in Herb. Lambert. Flowers large.

\*\* Foliis compositis; caule paniculato.

5. A. foliis caulinis pinnatis linearibus glabris, ramis indivisis, spicis secundis reflexis, floribus subsessilibus 5-floris. Willd. sp. pl. 3. p. 1826.

Icon. Gmel. fl. sib. 2. t. 51. Lob. ic. 756.

On the plains of the Missouri, M. Lewis. 4. Sept. Oct. v. s. in Herb. Lewis.

A. foliis caulinis setaceis pinnatis glabris, radicalibus pinnatis, laciniis 3-fidis incanis, caule procumbente ramoso virgato, floribus ovatis pedunculatis. Willd. sp. pl. 3. p. 1827.

Icon. Engl. bot. 338.

On the plains of the Missouri. M. Lewis. 4. Sept.—Nov. v. s. in Herb. Lewis.

 A. foliis incanis pinnatis, pinnis tripartitis linearibus acutis, floralibus pinnatis 3-partitisve, caule adscendente, floribus globosis nutantibus. Willd. sp. pl. 3. p. 1838. cana.

chinensis.

.

Santonica.

campestris.

frigida,

On the plains of the Missouri. M. Lewis. 24. Oct. Nov. v. s. in Herb. Lewis.

biennis.

8. A. foliis glabris, radicalibus tripartito-pinnatis, caulinis inferioribus pinnatifidis, superioribus indivisis linearibus, caule stricto, floribus subrotundis subsessilibus erectis. Willd. sp. pl. 3. p. 1842.

A. hispanica. Jacq. ic. rar. 1. t. 172.

On the banks of the Missouri. 3. v. s. in Herb. Lambert.

vulgaris.

9. A. foliis subtus tomentosis, caulinis pinnatifidis, laciniis lanceolatis subdentatis acutis, floralibus indivisis linearibus lanceolatis, floribus subsessilibus oblongis erectis, calycibus tomentosis. Willd. sp. pl. 3. p. 1845.

lcon. Engl. bot. 978.

On the banks of rivers: Canada to New England. 4. Sept.—Nov. v. v.

canadensis.

10. A. subdecumbens, parce pubescens; foliis planis linearipinnatifidis, ramulis spicifloris, floribus subhemisphæricis, calycibus scariosis. *Mich. fl. amer. 2.*p. 129.

In the moveable sands about Hudson's Bay. Michaux.

+. Receptacle smooth.

caudata.

- 11. A. erecta, glabra; foliis subsetaceo-pinnatifidis, laciniis convexis, ramulis confertis, racemis terminalibus longissimis strictis, floribus pedicellatis globoso-ovatis.—

  Mich. fl. amer. 2. p. 129.
  - On the gravelly banks of the Missouri. Michaux. +.
    - \*\*\* Foliis compositis; caule simplicissimo.

spithamæa.

12. A. pumila, sericeo-pubescens; foliis inferioribus linearibus superne pinnatifidis, laciniis paucis linearibus acutis, floralibus simplicibus, floribus racemosis brevipedunculatis hemisphæricis, calycibus scariosis.

In Labrador. Colmaster. 4. Sept. Oct. v. s. in Herb. Dickson. Flower large, in proportion to the size of

the plant; receptacle naked.

## 622. TANACETUM. Gen. pl. 1280.

vulgare.

1. T. foliis bipinnatis incisis serratis. Willd. sp. pl. 3.
p. 1814.
Icon. Oed. dan. 871.

In cultivated grounds and on road sides: New England to Pensylvania. 4. July—Sept. v. v. Common Tansy is probably introduced from Europe.

## 623. BACCHARIS. Gen. pl. 1285.

1. B. glaberrima, paniculato-ramosissima; foliis angusto-angustifolia linearibus integerrimis, panicula composita multiflora, calycibus parvulis sub-20-floris.—Mich. fl. amer. 2. p. 125.

On the sea-coast: Carolina to Florida; on the banks of the Mississippi. M. Lewis. h. July—Sept. v. v.; v. s. in Herb. Lewis. Flowers white, as all the fol-

lowing are.

 B. foliis lævibus cuneato-obovalibus superne dentatis, glomerulifloglomerulis florum axillaribus sessilibus remotis, squamis calycinis superne rums.—Mich. fl. amer. 2. p. 125.

In woods, on the coast of Virginia and Carolina. Aug.—Oct. v. v. Resembles the following.

3. B. foliis obovatis superne inciso-dentatis, panicula composita foliosa, fasciculis pedunculatis.—Willd. sp. pl.3.
p. 1915.

Icon. Schmidt arb. 82. Herm. parad. 225. Pluk. alm.

t. 27. f. 2.

On the sea-coast: Maryland to Florida. 1. Sept.—Nov. 1. V. The whole shrub is covered with a white powder.

## 624. CONYZA. Gen. pl. 1286.

1. C. herbacea, pubescens; foliis sessilibus lato-lanceolatis marylandica, acutis serratis: serraturis apice cartilagineis, corymbis terminalibus fastigiatis coarctatis subaphyllis, calycinis squamis subulato-mucronatis flosculis brevioribus.—

Mich. fl. amer. 2. p. 126. exclus. syn. Walteri.

Erigeron camphoratum. Willd. sp. pl. 3. p. 1960.

Icon. Dill. elth. t. 88. f. 104.

In overflowed places, near rivers and ponds: New York to Carolina. ①. Aug.—Oct. v. v. About a foot high; flowers reddish-purple; the whole plant emits a strong scent of camphor, only more disagreeable.

 C. herbacea, subpubescens; foliis petiolatis ovato-lanceo- camphorata, latis acutissimis subrepando-denticulatis: denticulis glandulosis, corymbis terminalibus et axillaribus folio brevioribus, calycinis squamis acutis flosculos subæquantibus,

Baccharis fœtida. Willd. sp. pl. 3. p. 1918. Walt. fl. car. 202.

Icon. Dill. elth. t. 89. f. 105.

On the banks of rivers and in large swamps: South Carolina and Georgia. 4. Aug. Sept. v.v. Flowers purple, smaller than the preceding; stem about three feet high.

bifrons.

3. C. herbacea, subglutinosa; foliis amplexicaulibus spathulato-oblongis acutis serratis, paniculæ corymbulis capitato-glomeratis.—Willd. sp. pl. 3. p. 1920.

C. amplexicaulis. Mich. fl. amer. 2. p. 126.

C. uliginosa. Pers. syn. 2. p. 427. Baccharis viscosa. Walt fl. car. 202.

Icon. Pluk. alm. t. 87. f. 4.

In low and overflowed fields: Carolina. 4. July, Aug. v. s. in Herb. Gronov. Flowers pale yellow.

pycnostachya.

4. C. caule alato, foliis lanceolatis subtus tomentosis subintegerrimis, spica cylindrica densiflora.—Mich. fl. amer. 2. p. 126.

C. spicata. Cav. ic. 1. p. 8. t. 12?

Gnaphalium undulatum. Walt. ft. car. 203.

In dry fields and barren woods: Carolina to Florida. 4.

July—Sept. v. v. A singular-looking species, nearly allied to C. virgata.

# 625. GNAPHALIUM. Gen. pl. 1282.

margaritaceum.  G. herbaceum; foliis lineari-lanceolatis sensim angustatis aeutis, caule superne ramoso, corymbo fastigiato, floribus pedicellatis.—Willd. sp. pl. 3. p. 1881.

Icon. Engl. bot. 2018.

In Canada and on the mountains of New York and New Jersey. 4. Aug.—Oct. v. v. About eighteen inches high; flowers large, white, with a yellow disk, very handsome.

polycephatum.  G. herbaceum, erectum; foliis lineari-lanceolatis acutis, supra glabris, subtus pubescentibus, caule paniculato tomentoso, corymbis terminalibus coarctatis.—Mich. fl. amer. 2. p. 127. G. obtusifolium. Willd. sp. pl. 3. p. 1880. excl. syn. Dillenii.

In old fields and woods: New England to Carolina. ①.

July—Sept. v. v. About a foot high, spreading;
flowers yellowish-white, not shining.

3. G. herbaceum; foliis lineari-spathulatis subtus tomentosis, caule erecto simplicissimo, floribus sessilibus glomeratis terminalibus et axillaribus.—Willd. sp. pl.3.p. 1884.

Icon. Dill. elth. t. 109. f. 132.

In sandy barren soil: New York to Carolina. 4. July —Oct. v. v. Not above a span high; flowers small, calyces purple.

4. G. sarmentis procumbentibus, caule simplicissimo, foliis radicalibus ovatis nervosis mucronatis, corymbo coarctato, floribus dioicis, squamis calycinis interioribus elongatis acutiusculis coloratis.—Willd. sp. pl. 3. p. 1882.

Icon. Pluk. alm. t. 348. f.9.

In woods and on sunny hills: Canada to Carolina, and in the Allegany mountains. 4. May—July. v. v. Not above six inches high; leaves large, resembling plaintain leaves; flowers white.

5. G. caule non sarmentoso simplicissimo, foliis radicalibus lanceolatis, floribus terminalibus aggregatis sessilibus, ealycinis squamis interioribus elongatis acutis membranaceis. Willd. sp. pl. 3. p. 1883.

Icon. Fl. dan. 332.

In Labrador. Colmaster. 4. v. s. in Herb. Dickson Not above four inches high; resembling G. dioicum.

 G. caule herbaceo simplicissimo erecto, foliis angustolanceolatis utrinque attenuatis et lanatis, floribus terminalibus axillaribusque sessilibus spicatis. Willd. sp. pl. 3. p. 1884.

Icon. Fl. dan. 254.

In stony woods: New York and Canada. 4. July, Aug. v.v. About a foot or less high; calyces shining, straw-coloured with brown.

G. caule herbaceo erecto ramoso, foliis obovato-spathu- americanum.
 latis subtus pubescentibus, floribus axillaribus et terminalibus glomeratis spicatis. Willd. sp. pl. 3.
 p. 1887.

purpureum.

plantagineum.

alpinum.

sylvaticum.

G. spathulatum. Lam encycl. 2. p 728.

In dry, sunny, and rocky situations: Pensylvania to Virginia. ©. July—Sept vv. About a span high; flowers small, pale straw-coloured.

uliginosum.

8. G. caule herbaceo ramoso diffuso lanato, foliis linearilanceolatis utrinque angustatis tomentosis, floribus terminalibus congestis. Willd. sp. pl. 3. p. 1891. Icon. Fl. dan. 850.

In exsiccated pools: Canada to Virginia. ②. Aug. Sept. v. v. About a span high; flowers small, calvees brown.

- germanicum.
- g. G. herbaceum, caule erecto dichotomo, foliis linearilanceolatis acutis tomentosis, floribus globoso-capitatis alaribus terminalibusque. Willd. sp. pl. 3. p. 1894. Filago germanica. Sp. pl. 1311.

Icon. Fl. dan. 997. Engl. bot. 946.

In dry fields and pastures: Pensylvania to Virginia. O. July, Aug. v. v. About a span high: calyces straw-coloured.

# 626. BELLIS. Gen. pl. 1300.

integrifolia.

- 1. B. caulescens, divaricato-ramosa; foliis integerrimis, interioribus obovatis, supremis lanceolatis, calycinis foliolis acutissimis pilo acuminatis.—*Mich. fl. amer.* 2. p. 131.
  - On banks of rivers and on shady hills in Tennassee.

    Michaux. +.

# 627. CHRYSANTHEMUM. Gen. pl. 1307.

Leucanthemum.

 C. foliis amplexicaulibus lanceolatis serratis, basi incisodentatis, caule erecto ramoso. Willd. sp. pl. 3. p. 2142.

Icon. Fl. dan. 994. Engl. bot. 601.

In meadows and fields: common every where, and probably introduced from Europe. 2. June, July. v. v. A very troublesome weed; flowers large, white, resembling a daisy.

- arcticum.

C. foliis radicalibus tripartitis inciso-dentatis, caulinis cuneiformibus 3-partitis obtusis. Willd. sp. pl. 3. p. 2146.

Icon. Gmel. fl. sib. 2. t. 84.

On the north-west coast. 4. v. s. in Herb. Lambert. About a foot high; flowers purplish-white, the size of the preceding species.

## 628. PYRETHRUM. Smith fl. brit. 2. p. 900.

1. P. foliis lanceolatis, inferioribus apice serratis, superioribus integerrimis, ramis corymbosis. Willd. sp. pl. 3. p. 2151.

serotinum.

Chrysanthemum serotinum. Sp. pl. 1251.

Icon. Pluk. alm. t. 17. f. 2. Moris. hist. 3. s. 6. t. 9. f. 11.

In North America. 21. Oct. Nov. v. s. in Herb. Lam-Flowers white, smaller than Chrysanthemum Leucanthemum.

## 629. ARNICA. Gen. pl. 1296.

1. A. foliis remote dentatis subtus lanato-hirsutis, radicalibus petiolatis oblongis basi angustatis, caulinis alternis oblongo-lanceolatis, caule unifloro. - Willd. sp. pl. 3. p. 2108.

Doronicum.

Icon. Jacq. fl. austr. 1. t. 92. Allion. fl. ped. t. 17. f. 1 & 2.

In Labrador. Colmaster. 2. July, Aug. v. s. in Herb. Dickson. Not above a span high; flowers large, yellow.

2. A. glabra; foliis integerrimis utrinque glabris acutis tri- plantaginea. nervibus, radicalibus spathulato-lanceolatis basi in petiolum angustatis, caulinis oppositis lanceolatis sessilibus, caule unifloro.

In Labrador. Colmaster. 4. July, Aug. v. s. in Herb. Dickson. About a span high; flower the size of the preceding, yellow, the rays broad and 3-dentated.

' fulgens.

3. A. pubescens; foliis radicalibus lanceolatis obtusiusculis basi attenuatis petiolatis trinervibus, caulinis oppositis remotis linearibus, caule unifloro.

On the banks of the Missouri. 4. v.s. About a foot or more high, very slender; leaves on the stem generally two pairs; flowers somewhat smaller than the preceding, of a very deep and beautiful yellow.

4. A. hirsuta; foliis radicalibus decussatim oppositis oblongo-ovatis subdentatis, caule subaphyllo summitate in pedunculos 1-floros diviso.

Claytoni.

Doronicum nudicaule. Mich. fl. amere 2. p. 121.

Doronicum acaule. Walt. fl. car. 205.

Doronicum foliis Plantaginis, &c. Clayt. fl. virg. no. 37. In shady woods: Virginia to Florida. 4. July, Aug. v. s. in Herb. Gronov. nec non Walter. About two feet high; flowers large, of a fine yellow.

maritima.

A. foliis lanceolatis, inferioribus serratis, caule folioso multifloro. Willd. sp. pl. 3. p. 2110.
 On the north-west coast. U. v. s. in Herb. Banks. Flowers large, very handsome.

#### 630. CINERARIA. Gen. pl. 1294.

integrifolia. β. minor. 1. C. lanato-tomentosa; caule simplici, foliis inferioribus spathulatis subdentatis, superioribus angusto-lanceolatis integerrimis erectis, floribus subumbellatis.— Willd. sp. pl. 3. p. 2082.

Senecio tomentosus. Mich. fl. amer. 2. p. 119.

On the banks of the Missouri. M. Lewis. In Carolina near Flat-rock. Michaux. 4. Aug. Sept. v. s. in Herb. Lewis. About a foot high; flowers the size of Senecio Jacobæa, yellow; the rays very short.

heterophylla.

- 2. C. lanato-tomentosa; foliis radicalibus longe petiolatis spathulato-obovatis, ovatis acutiusculis pinnatifidisque, caulinis 2–3-linearibus pinnatifidis, floribus corymbosis.
  - On dry sunny rocks, in the Blue-mountains: Pensylvania. 4. May, June. v. v. About a span high; flowers deep yellow, the size of the preceding.

canadensis.

C. villosa; foliis pinnatifidis subvillosis, laciniis sinuatis, floribus paniculatis.—Willd. sp. pl. 3. p. 2085.
 In Canada. Kalm. 4. +. Resembles C. maritima,

but is not tomentose.

# 631. SENECIO. Gen. pl. 1290.

\* Floribus flosculosis: radiis nullis.

vulgaris.

 S. foliis amplexicaulibus pinnatifidis dentatis, floribus corymboso-coarctatis.—Willd. sp. pl. 3. p. 1979.
 Icon. Fl. dan. 513. Engl. bot. 747.

In cultivated grounds as a weed; about Philadelphia and some other places in Pensylvania; introduced from Europe. O. April—Oct. v. v. Flowers, as all the following, yellow.

2. S. caule virgato-paniculato, foliis amplexicaulibus ob- hieracifolius. longis acutis inæqualiter acuteque profunde dentatis, calveibus lævibus. - Willd. sp. pl. 3. p. 1974.

Icon. Pluk. phyt. t. 112. f. 1. mala.

On road sides and in newly cleared grounds: Canada to Carolina. O. July, Aug. v. v. From two to five This is one of the plants which spring up feet high. in the most remote western countries, when the land is cleared of timber, particularly when the brushwood is burnt on the ground; from which circumstance it is generally known by the name of Fire-weed. I have frequently found it covering a square piece of cleared land, when there was not a single plant to be found in any other place for a considerable distance round it.

3. S. glaber; foliis radicalibus spathulatis serratis in petiolum attenuatis, caulinis pinnatifidis dentatis remotissimis, pedunculis elongatis umbellato-corymbosis.

On rocks, near the banks of rivers: about Easton, Pen-4. July, Aug. v. v. Resembling No. 8. sylvania. but is destitute of a ray.

4. S. glaber; foliis radicalibus longe petiolatis ovato-subrotundis subcordatis dentatis, caulinis 2. remotis pinnatifidis dentatis, pedunculis brevibus subternis umbellatis.

S. tussilaginoides. Walt. fl. car. 208?

In Labrador. Colmaster. In Carolina. Walter. 4. v. s. in Herb. Dickson. Not above a span high.

#### \*\* Floribus radiatis.

5. S. caule simplicissimo rigide erecto subnudo, foliis om- pauperculus. nibus lanceolatis, radicalibus subintegris inciso-dentatisque, corymbo paucifloro, calycibus glabellis, radiis parvulis .- Mich. fl. amer. 2. p. 120.

About lakes: Canada. Michaux. +. A small plant; flowers the size of S. Jacobæa.

6. S. foliis radicalibus longissime petiolatis orbiculatis subcordatis crenatis, caulinis paucis remotissimis linearioblongis basi dilatatis inciso-dentatis, pedunculis brevissimis hirsutis subumbellatis, calycibus glabellis, radiis paucis brevissimis.

S. strictus. Herb. Banks, mss.

On the rocky banks of rivers; Pensylvania. -Aug. v. v.; v. s. in Herb. Banks. About a foot elongatus.

pauciflorus.

gracilis.

- high, very slender; flowers the smallest of all the species here enumerated.
- olovatus.
- S. foliis radicalibus obovatis crenato-serratis petiolatis, caulinis pinnatifidis dentatis, floribus subumbellatis longe pedunculatis, caule glabriusculo.—Willd. sp. pl. 3. p. 1999.

S. obtusatus. Herb. Banks. mss.

- On the side of hills and rocks, near rivers: New York to Virginia. 4. June, July. v. v.; v. s. in Herb. Banks. Flowers nearly the size of S. Jacobæa.
- Balsamitæ.
- 8. S. foliis radicalibus oblongis serratis petiolatis, caulinis inferioribus lyrato-pinnatifidis serratis, summis pinnatifidis dentatis, floribus subumbellatis, caule pedunculisque basi villoso.—Willd. sp. pl. 3. p. 1998.

S. lyratus. Mich. fl. amer. 2. p. 120. S. glabellus. Lam. encycl. 7. p. 102.

In rocky fertile soil: Pensylvania to Virginia. 4. June, July. v. v. Flowers the size of the preceding.

aureus,

 S. foliis radicalibus ovatis cordatis serratis petiolatis, caulinis pinnatifidis dentatis, lacinia terminali lanceolata, pedunculis subumbellatis incrassatis.—Willd. sp. pl. 3. p. 1008.

In shady woods, about rocks: Canada to Virginia. 4.

June, July. v. v. Flowers the same size as the pre-

ceding.

- Cymbalaria. 10. S. foliis radicalibus petiolatis subrotundis basi truncatis dentatis, petiolis appendiculatis sublyratis, caulinis sessilibus linearibus inciso-dentatis, caule subunifloro.
  - On the north-west coast. D. Nelson. v. s. in Herb. Banks.
- canadensis.
- S. foliis bipinnatis linearibus glabris, summis pinnatis, corymbis compositis fastigiatis.— Willd. sp. pl. 3. p. 1996.

In Canada. Kalm. +.

ciliatus.

- 12. S. caule piloso, foliis lanceolato-linearibus ciliatis.— Walt. fl. car. 208.
  - In Carolina. Walter. +. From six to eight feet high; rays of the flower white.

### 632. TUSSILAGO. Gen. pl. 1289.

1. T. thyrso fastigiato, floribus radiatis, foliis subrotundocordatis inæqualiter dentatis subtus tomentosis. Willd. sp. pl. 3. p. 1968. frigida.

Icon. Fl. dan. 61. Gmel. fl. sib. 2. t. 70.

In Canada, and on the highest peaks of the Vermont and New Hampshire mountains.  $\mathcal{U}$ . May. v. v. Flowers of the ray white, disk pale purple.

sagittate.

2. T. thyrso ovato fastigiato, floribus radiatis, foliis radicalibus oblongis acutis sagittatis integerrimis, lobis obtusis. *Herb. Banks. mss.* 

On Hudson's Bay. Hutchinson. 4. v. s. in Herb. Banks.

3. T. thyrso fastigiato, floribus obsolete radiatis, foliis subrotundo-cordatis semi-septemiobis inciso-dentatis subtus tomentosis. Willd. sp. pl. 3, p. 1972. palmate.

Icon. Ait. kew. 3. t. 11.

In Labrador. Colmaster. 4. April, May. v. s. in Herb. Dickson.

### 633. INULA. Gen. pl. 1295.

1. I. foliis amplexicaulibus ovatis rugosis subtus tomentosis, calycum squamis ovatis. Willd. sp. pl. 3. p. 2089.

Icon. Fl. dan. 728. Engl. bot. 1546.

Helenium.

In low meadows and on road sides: New England to Pensylvania; originally brought from Europe. 4. July, Aug. v. v. A tall rough-looking plant; flowers large, and, as all the rest, yellow.

mariana.

I. villosa; foliis sessilibus oblongo-lanceolatis basi attenuatis obtusis glanduloso-denticulatis, inferioribus petiolatis serratis, pedunculis axillaribus corymbosis glanduloso-pilosis.—Willd. sp. pl. 3. p. 2009. excl. syn. Plukenetii.

I. glandulosa. Lam. encycl. 3. p. 259.

Icon. Mill. dict. ic. t. 57.

In dry sandy woods and fields: New Jersey to Carolina. 4. Aug.—Oct. v. v. A foot or more high; flowers the size of I. Britannica.

3. I. hispido-pilosa, scaberrima; foliis arcte sessilibus oblongis acutis superne subdentatis utrinque scabris, pedunculis axillaribus corymbosis hispidis.

I. subaxillaris. Lam. encycl, 3. p. 259.

scabra.

Icon. Pluk. mant. 340. f. 1. no. 5.

In the pine-barrens of South Carolina. 21. Aug. Sept. v. s. in. Herb. Enslen. About two feet high; flowers smaller than the preceding.

falcata,

 I. lanato-villosa; foliis sessilibus linearibus acutissimis subfalcato-patentibus nervosis utrinque pilosis, pedunculis paucis axillaribus corymbosis calycibusque villosis.

Aster gracilentus. Herb. Banks. mss.

In sandy pine-woods: New Jersey. 4. Sept. Oct. v. v. Not above a span high; flowers the size and shape of No. 2.

gossypina.

5. I. lanuginoso-candicans; foliis sessilibus oblongo-spathulatis obtusis integerrimis, corymbo subfastigiato.— *Mich. fl. amer.* 2. p. 122.

Inula lanata. Herb. Banks. mss.

On the sea-coast of Carolina and Florida. 4. Aug.—Oct. v. s. About a foot high; flowers the size of No. 3.

graminifolia.

6. I. argenteo-sericea; caule simplicissimo, foliis longissime lanceolato-linearibus integerrimis erectis nervosis, corymbo composito laxo, calycibus turbinatis, squamis acutissimis carina serrato-glandulosis.—Mich. fl. amer. 2. p. 122.

In sandy dry woods: Pensylvania to Florida. 4. Aug. —Oct. v. About a foot high; flowers small.

argentea.

 I. sericea; foliis lanceolatis trinerviis erectis flexuosis, corymbo subcomposito stricto, squamis calycinis planis pubescentibus.—Pers. syn. 2. p. 452.

In Pensylvania. *Persoon.* 4. +. Flower a great deal larger than the preceding species, with which it has a

great affinity.

## 634. ERIGERON. Gen. pl. 1287.

alpinum.

E. villosum; caule plerumque unifloro, calycibus villosis, radio patente, foliis lanceolatis obtusiusculis.—
 Willd. sp. pl. 3. p. 1959. Smith fl. brit. 2. p. 877.

Icon. Engl. bot. 464. Fl. dan. 202.

In Labrador. Colmaster. 4. June, July. v. s. in Herb. Dickson. The Labrador specimen is not above two inches high; flower large, rays purple.

bellidifolium. 2. E. hirsutum, incanum; foliis radicalibus obovatis subserratis, caulinis paucis distantibus lanceolatis integer-

rimis, caule sub-3-floro, radiis elongatis. - Willd. sp. pl. 3. p. 1958.

E. serpentaria. Herb. Banks. mss.

E. pulchellum. Mich. fl. amer. 2. p. 224.

E. caule simplicissimo, &c. Gron. fl. virg. 122.

In shady woods, principally throughout the mountains: Canada to Carolina. 4. June—Aug. v.v. A foot or eighteen inches high; flowers large, rays blueishwhite; sometimes it produces only one flower, and sometimes more than three. It is known by the name of Poor Robin's Plantain.

3. E. glabrum; foliis radicalibus ovali-lanceolatis acutis subdentatis, caule simplicissimo subaphyllo elongato, corymbis terminalibus paucifloris, radiis longitudine calycis .- Mich. fl. amer. 2. p. 224.

Aster vernus. Willd. sp. pl. 3. p. 2029. secundum speci-

men Clayton.

In low grounds of Carolina and Georgia. 4. June-Aug. v. v.; v. s. in Herb. Gronov. A foot high; flowers small, rays blueish-white.

4. E. tenue pubescens; foliis lanceolatis acutis, inferioribus quercifolium. sublyratis grosse dentatis supremis integerrimis, caule subsimplici summitate 3-floro, radiis calyce hemisphærico duplo longioribus .- Lam. encycl. 8. p. 491.

Icon. Lam. illustr. t. 681. f. 4.

In Carolina and Florida. 4. July, Aug. v. s. in Herb. Enslen. Not above a span high; flowers pale blue or white.

5. E. pubescens; foliis cuneato-oblongis rariter inciso-den- philadelphitatis, caulinis semiamplexicaulibus, caule debili simplici superne corymboso, pedunculis elongatis unifloris, radiis capillaceis calyce hemisphærico duplo longioribus .- Willd, sp. pl. 3. p. 1957. Mich. fl. amer. 2. p. 223.

In fields and dry woods: Canada to Carolina. 4. Aug. Sept. v. v. A delicate and handsome plant, from one to two feet high; flowers the size of a common

daisy, rays of a beautiful blueish-purple.

6. E. pubescens; foliis oblongis dentatis amplexicaulibus, superioribus integerrimis, pedunculis corymbosis incrassatis, inferioribus elongatis, calycinis squamis carina pilosis, radiis calyce duplo longioribus.—Willd. sp. pl. 3. p. 1958.

In pastures and on fertile hills, near the banks of rivers:

nudicaule.

cum.

ригригеит.

Canada to Virginia. 4. July, Aug. v. v. A foot or eighteen inches high; flowers large, purple, and very ornamental.

strigosum.

7. E. strigoso-pilosum; foliis lanceolatis utrinque attenuatis medio grosse paucidentatis seu integerrimis, floribus corymboso-paniculatis. - Willd. sp. pl. 3. p. 1956. In fields and dry pastures; common: Canada to Virgi-3. July, Aug. v. v. A very troublesome weed; flowers white, resembling the common daisy.

nervosum,

8. E. albido-pubescens; foliis lineari-lanceolatis integerrimis sericeis nervosis, floribus paniculatis. - Willd. sp. pl. 3. p. 1953.

In old fields and woods; common: Canada to Virginia. 4. July—Sept. v. v. Likewise a troublesome weed; flowers resembling the preceding.

heterophyllum.

9. E. foliis radicalibus subrotundo-ovatis profunde dentatis petiolatis, caulinis lanceolatis acutis medio serratis, corymbo terminali. Willd. sp. pl. 3. p. 1956.

Aster annuus. Willd. sp. pl. 3. p. 2041.

Icon. Fl. dan. 486.

In old waste fields and on road sides; common. June—Aug. v. v. Flowers white.

canadense.

10. E. caule hispido paniculatim ramosissimo, foliis lanceolato-linearibus ciliatis, calveibus cylindricis, radiis multiplici serie confertis brevissimis. - Willd. sp. pl. 3. p. 1954.

In dry fields and on road sides; common: Canada to Florida. O. July—Sept. v. v. A common weed; flowers small.

divaricatum. 11. E. divaricato-ramosissimum, subfastigiato-paniculatum; foliis subulatis, floribus brevissime radiatis, corollulis disci 4-fidis. - Mich. fl. amer. 2. p. 123.

In fields and meadows of Kentucky, and on the banks of the Missouri and Mississippi. O. July-Sept. v. s. Resembles the preceding.

longifolium.

12. E. glaberrimum; caule virgatim-paniculato, ramis strictis, foliis longissime-linearibus strictis, calycibus ovatis, radiis vix calyce longioribus.— Lam. encycl. 8. p. 480.

In Carolina. 2. July—Sept. v. s. About two feet high; rays yellow.

hyssopifolium.

13. E. caule ramis sterilibus paniculato: paucis in pedunculos nudos protractis, foliis linearibus glabris ciliatis, radiis calvee cylindraceo multo longioribus.—Mich. fl. amer. 2. p. 123.

E. carolinianum. Willd. sp. pl. 3. p. 1953.

Icon. Dill. elth. t. 306. f. 394.

In low grounds: Canada to Carolina; rare. 4. July -Sept. v. s. Resembles the preceding; rays yellow.

14. E. pilosum, subacaule; foliis radicalibus longe petiolatis compositum, triplicato-3-partitis, laciniis linearibus divaricatis, caulinis linearibus plerumque indivisis, caule superne nudo unifloro.

On the banks of the Kooskoosky. M. Lewis. 4. July, Aug. v.s.; v.v. cultum. Not above a span high; flowers resembling a daisy exceedingly; they change during their flowering, from white to a lively pale red.

## 635. SOLIDAGO. Gen. pl. 1292.

\* Racemis secundis; foliis triplinervibus.

1. S. caule villoso, foliis lanceolatis serratis triplinervibus scabris, racemis paniculatis secundis recurvis, ligulis abbreviatis. Willd. sp. pl. 3. p. 2055.

Icon. Pluk. alm. t. 263. f. 1.

In hedges, old fields, and along fences: Canada to Pensylvania. 4. July—Sept. v. v.; v. s. in Herb. Banks. et Lumbert. From eighteen inches to five feet high; the flowers of all the following species are, like the present, yellow and small.

2. S. caule villoso erecto, foliis lanceolatis serratis triplinervibus scabris subtus villosis, racemis spiciformibus erectis, innuptis nutantibus, ligulis abbreviatis. Willd. sp. pl. 3. p. 2055.

In swamps, hedges, and about fences: Canada to Vir-4. July-Sept. v. v.; v. s. in Herb. Banks.

From four to seven feet high.

3. S. caule erecto tereti lævi, foliis lineari-lanceolatis serratis glabris margine asperis triplinervibus, racemis paniculatis secundis, pedunculis pubescentibus. - Willd. sp. pl. 3. p. 2056.

In woods and hedges: New England to Pensylvania. 4. Sept. Oct. v. v.; v. s. in Herb. Banks.

4. S. caule erecto glabro, foliis lanceolatis serratis margine scabris obsolete triplinervibus, racemis paniculatis se-VOL. II.

canadensis.

procera.

serotina.

gigantea.

cundis, pedunculis hirtis, ligulis abbreviatis. Willd.

sp. pl. 3. p. 2056.

In open low places, on the side of fertile hills: New England to Virginia. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks. From four to seven feet high.

ciliaris.

5. S. caule erecto glabro, foliis lanceolatis subtriplinervibus glabris margine scabris subserratis, racemis paniculatis secundis, pedunculis glabris, bracteis ciliatis, ligulis abbreviatis. Willd. sp. pl. 3. p. 2056.

In Pensylvania. Muhlenberg. 4. +.

reflexa.

6. S. caule erecto villoso, foliis lanceolatis subserratis triplinervibus scabris reflexis, ramis paniculatis subsecundis reflexis. Willd. sp. pl. 3. p. 2056.

In pine-woods and old fields: New Jersey to Carolina. 4. Aug. Sept. v. v.; v. s. in Herb. Banks.

lateriflora.

S. caule erecto pilosiusculo, foliis lanceolatis subtriplinervibus glabris margine scabris, inferioribus subserratis, racemis paniculatis subrecurvis secundis. Willd. sp. pl. 3. p. 2057.

In old fields and dry woods: Canada to Carolina. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks. Not more than half the size of No. 1; flowers larger than any of the preceding.

## \*\* Racemis secundis; foliis venosis.

aspera.

8. S. caule erecto tereti piloso, foliis ovatis subellipticis scaberrimis rugosis serratis enervibus, racemis paniculatis secundis. Willd. sp. pl. 3. p. 2057.

Icon. Dill. elth. t. 305. f. 392.

In barren dry fields and woods: New York to Carolina. 4. Sept.—Nov. v. v. v. s. in Herb. Banks.

altissima.

 S. caule erecto hirto, foliis lanceolatis inferioribus profunde serratis scaberrimis rugosis, paniculis secundis. Willd. sp. pl. 3. p. 2057.

Icon. Mart. cent. 14.

vulgaris.

α. S. caule 5-pedali piloso, serraturis profundis inæqualibus, racemis divaricatis. Ait. kew. 3. p. 212.

recurvata.

β. S. caule 3-pedali villoso, serraturis profundis subæqualibus. Ait. l. c.

virginiana.

- γ. S. caule 5-pedali villosissimo, serraturis magnis, racemis vix divergentibus. Ait. l. c. Mill. dict.

  In hedges and fields: common N. Aug.—Oct. v. v.:
  - In hedges and fields; common. 4. Aug.—Oct. v.v.; v. s. in Herb. Banks. et Lambert. It is a very variable species, and scarcely two individuals look alike.

10. S. caule erecto hirto, foliis lanceolatis scaberrimis rugosis inferioribus adpresso-serratis, racemis paniculatis secundis patentissimis. Willd. sp. pl. 3. p. 2058. Mill. dict.

rugosa.

S. altissima E. Ait. kew. 3. p. 213.

Icon. Dill. elth. t. 308. f. 396.

In dry barren soil: Canada to Virginia. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks. et Lambert.

11. S. caule erecto villoso, foliis lanceolatis molliusculis serratis enervibus, racemis paniculatis secundis. *Herb. Banks. mss.* 

villosa.

S, altissima \( \beta \). Ait. kew. 3. \( p \). 213.

S. pilosa. Mill. dict.

In fields and woods; frequent. 21. Aug.—Oct. v.v.; v. s. in Herb. Banks. et Lambert. From eighteen inches to three feet high.

12. S. caule erecto hirto sulcato, foliis oblongis utrinque attenuatis acuminatis, supra glabris, subtus rugosis scabris, medio adpresso-serratis, racemis secundis.—Willd. sp. pl. 3. p. 2059.

scabra.

In old fields and about fences: Pensylvania to Virginia. 4. Aug.—Oct. v. v.; v. s. in Herb. Lambert.

13. S. caule erecto tereti hirto, foliis oblongis acutis subamplexicauli-sessilibus glabris margine scabris rariter obsolete dentatis, panicula nuda secunda pyramidata, ramis reflexis, pedunculis glabris.

pyramidata.

In pine-barrens of Georgia. Enslen. 21. Aug. Sept. v. s. in Herb. Enslen. About two feet high; the leaves decrease toward the beginning of the panicle, which consists of lively yellow and very small flowers.

nemoralis.

14. S. caule erecto tomentoso, foliis caulinis lanceolatis hispidis integerrimis, radicalibus subcuneiformibus serratis, racemis paniculatis secundis. Willd. sp. pl. 3. p. 2059.

In sandy and barren fields; common: Canada to Carolina. 24. Aug.—Oct. v. v.; v. s. in Herb. Banks.

The whole plant has a gray aspect, and is about a foot, or sometimes two, high.

15. S. caule erecto glabro, foliis ellipticis serratis glabris, radicalibus oblongo-spathulatis, racemis paniculatis secundis patentibus, pedunculis pubescentibus. Willd. sp. pl. 3. p. 2050.

In shady woods, in fertile soil: New York to Virginia.

2. Sept. Oct. v.v. Two feet high.

patula.

Ž

ulmifolia. 16. S. caule erecto glabro striato, foliis ellipticis profunde serratis acuminatis subtus villosis, radicalibus obovatis, racemis paniculatis secundis, pedunculis villosis, ligulis abbreviatis.—Willd. sp. pl. 3. p. 2060.

In swamps and shady woods: New York to Virginia.

**4**. Aug.—Oct. v. v.

argula. 17. S. caule erecto glabro, foliis glabris argute inæqualiter serratis, caulinis ellipticis, radicalibus ovato-oblongis, racemis paniculatis secundis, ligulis elongatis. Willa. sp. pl. 3. p. 2060.

In woods and meadows: Canada to Virginia. 4. Sept.

-Nov. v. v.; v. s. in Herb. Banks.

juncea. 18. S. caule erecto glabro, foliis lanceolatis glabris margine scabris, inferioribus serratis, racemis paniculatis secundis. Willd. sp. pl. 3. p. 2060.

In sandy fields and woods: New Jersey to Carolina.

4. Aug.-Oct. v. v.; v.s. in Herb. Banks.

elliptica.

19. S. caule erecto glabro, foliis ellipticis lævibus serratis, racemis paniculatis secundis, ligulis mediocribus.

Willd. sp. pl. 3. p. 2060.

S. latissimifolia. Mill. dict.

In shady woods, among rocks: New York to Virginia. 21. Aug.—Oct. v.v.; v.s. in Herb. Eanhs.

asperata. 20. S. caule paniculato-corymboso, racemis suberectis, floribus adscendentibus, foliis lanceolatis serratis scabris.

Herb. Ranks. mss.

In Canada. 4. v. s. in Herb. Banks.

recurvata. 21. S. caule erecto pubescente, foliis lanceolatis serratis margine scabris, racemis elongatis secundis recurvatis paniculatis. Willd. enum. 889.

In shady woods: Pensylvania and Virginia. 4. Sept.

-Nov. v. v.

sempervirens. 22. S. caule erecto glabro, foliis lineari-lanceolatis subcarnosis lævibus integerrimis margine scabris, racemis paniculatis secundis, pedunculis pilosis. Willd. sp. pl. 3. p. 2060.

Icon. Pluk. alm. t. 235. f. 5. Moris. hist. 3. s. 7. t. 23.

In swamps and on the banks of rivers: Canada to Pensylvania. 4. Sept.—Nov. v. v.; v. s. in Herb. Banks. et Lambert.

virgata. 23. S. caule glabro simplicissimo, foliis subcuneato-lanceo-latis obtusis integerrimis glaberrimis appressis, supe-

rioribus sensim minoribus, ramis paniculæ elongatis apice racemifloris, pedunculis glabris secundis.—*Mich. fl. amer.* 2. p. 117.

In shady wet woods of Lower Carolina and Georgia. 2. Aug.—Oct. v. v. About two foot high; ex-

tremely smooth and slender.

24. S. caule erecto pubescente, foliis lineari-lanceolatis integerrimis glabris margine scabris, racemis paniculatis secundis. Willd. sp. pl. 3. p. 2061.

Icon. Pluk. alm. 116. f. 6.

In dry sunny situations, on fertile woodlands: Canada to Carolina; principally throughout the Allegany mountains. 4. Aug. Oct.—v. v.; v. s. in Herb. Banks. This is most generally and principally known among the inhabitants by the name of Golden-rod, and used as a wholesome tea. The flowers, gathered when fully expanded, and carefully dried, give a most agreeable substitute for tea, which for some time has been an article of exportation to China, where it fetches a high price.

25. S. caule erecto tereti aspero, foliis arcte sessilibus reflexis lineari-lanceolatis mucronatis subtus subcarinatis margine asperis, panicula racemis recurvatis.—*Mich. fl. amer.* 2. p. 117.

In open swamps of Virginia and Carolina. 4. Aug.

Sept. v. v.

#### \*\*\* Racemis erectis.

26. S. glabra, suffruticosa; foliis lanceolatis obtusis enervibus, pauciflosculopanicula composita multiflora, fasciculis erectis, calycibus angusto-oblongis 5-floris, radio unico.—Mich. fl. amer. 2. p. 116.

In the sand-barrens of Virginia and Carolina. 4. Aug.

-Oct. v. v.

27. S. caule foliisque ellipticis pilosis, inferioribus serratis, ramis foliolosis, racemis erectis, foliolis calycinis obtusis. *Willd.sp. pl.* 3. p. 2061.

Icon. Pluk. alm. t. 114. f. 3.

In woods and on dry hills: Canada to Carolina. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks. It is easily distinguished from the rest, by the short and close racemes and white rays.

28. S. caule erecto villoso, foliis ellipticis scabriusculis petiolatis, racemis erectis, ligulis elongatis. Willd. sp. pl. 3. p. 2062.

odora.

retrorsa.

bicolor.

petiolaris.

In dry sandy soil: New Jersey to Carolina. 4. Sept. -Nov. v. v.; v. s. in Herb. Banks.

Stricta.

cæsia.

29. S. caule erecto glabro, foliis caulinis lanceolatis integerrimis glabris margine scabris, radicalibus serratis, racemis paniculatis erectis, pedunculis glabris. Willd. sp. pl. 3. p. 2062.

In sandy woods: New Jersey to Carolina. 4. Aug. -Nov. v. v.; v. s. in Herb. Banks. et Lambert.

About two feet high, very smooth.

lanceolata. 30. S. caule hirto angulato ramosissimo, foliis lanceolatolinearibus integerrimis erectiusculis 3—5-nervibus scabriusculis: nervis subtus pilosis, axillis nudis, corymbis terminalibus fastigiatis, ramulis capitatis, ligulis altitudine disci.—Willd. sp. pl. 3. p. 2062.

Chrysocoma graminifolia. Sp. pl. 1178.

In fields and meadows, on the side of woods and rivers: Canada to Pensylvania. 2. Sept.—Nov. v. v.; v.s. in Herb. Banks et Lambert. From four to five feet high; flowers small.

31. S. caule scabro angulato corymboso-ramoso, foliis antenuifolia. gustissime-linearibus patulis obsolete 3-nervibus scabris, axillis foliosis, corymbis terminalibus fastigiatis, ramulis capitatis, ligulis disco vix altioribus.

> S. lanceolata \( \beta \). minor. Mich. fl. amer. 2. p. 116. In pine-barrens: New Jersey to Carolina. 2. Sept. Oct. v. v. Not above a foot high; leaves very small

and narrow.

Sarothræ. 32. S. caule angulato scabro inferne nudo, superne corymboso, ramis summitate paucifloris, foliis linearibus stricte-appressis obsolete 3-nervibus utrinque scabris,

axillis nudis, ligulis disco duplo longioribus.

On the plains of the Missouri. M. Lewis. 4. Sept. v. s. in Herb. Lewis. About a span high; resembling Hypericum Sarothra in general habit very much. This and the two preceding have a great affinity to one another; but I consider them good and permanent species, as there are no intermediate varieties, which might lead to the suspicion that all belong to one genuine species.

33. S. caule lævi erecto, foliis lanceolatis glabris, racemis erectis, ligulis mediocribus. Willd. sp. pl. 3. p. 2062.

Icon. Dill. elth. t. 307. f. 395.

In woods and low fields: New England to Carolina. 4. Aug.—Oct. v. v.

S. caule glabro paniculato, foliis lanceolatis serratis glabris margine scabris, ramis apice racemosis, ligulis elongatis.—Willd. enum. 891.

In sandy fields and woods: New York to Virginia. 4. Sept. Oct. v. v.

35. S. caule erecto hispido scabro, foliis lanceolatis scabris integerrimis, radicalibus serratis, racemis erectis, ligulis mediocribus. Willd. sp. pl. 3. p. 2063.

In grassy fields and woods: New Jersey to Virginia. 4.

Oct. Nov. v. v. Resembles No. 33.

36. S. caule paniculato hirto, foliis lanceolatis utrinque scabris, caulinis serratis, rameis integerrimis, racemis erectis, ligulis elongatis. Willd. enum. 891.

In North America. Willdenow. 4. +.

37. S. caule ramoso pubescente, foliis lanceolatis utrinque scabris attenuatis 3-nervibus integerrimis, racemis erectis, ligulis elongatis. Willd. enum. 891.

In sandy barren woods: New Jersey to Carolina. 4. Aug.—Oct. v.v.

38. S. caule erecto lævi, foliis lanceolatis carnosis integerrimis undique lævibus, racemis paniculatis erectis, pedunculis squamosis villosis, ligulis elongatis. Willd. sp. pl. 3. p. 2063.

In salt marshes: Canada to Virginia. 21. Sept.—Nov. v. v.; v. s. in Herb. Banks. A tall robust species, resembling the following one very much, and proba-

bly nothing more than a variety.

39. S. caule obliquo glabro, foliis lanceolatis subcarnosis integerrimis undique lævibus, racemis paniculatis erectis, pedunculis squamosis glabris, ligulis elongatis. Willd. sp. pl. 3. p. 2063.

Icon. Dodart. act. 4. t. 219.

On the banks of rivers and ditches, near salt-water. 4. July—Sept. v.v.; v.s.in Herb. Banks. et Lambert. Tall; flowers large,

40. S. caule erecto subpubescente, foliis lineari-lanceolatis membranaceis basi attenuatis glabris margine scabris, infimis subserratis, racemis erectis, ligulis elongatis. Willd. sp. pl. 3. p. 2064.

S. integerrima. Mill. dict.

On the banks of rivers and ditches: Canada to Virginia.

livida.

pro occor

hispida.

. .

hirta.

lithospermifolia.

lævigata.

mexicana.

viminea.

1. Aug.-Oct. v. v.; v. s. in Herb. Banks. et Lambert. Resembles the preceding, but the leaves are membranaceous, &c.

erecta.

- 41. S. caule subvilloso, foliis lanceolatis venosis glabris integerrimis subpetiolatis. Herb. Banks, mss. In North America. U. v. s. in Herb. Banks.
- macrophylla. 42. S. foliis inferioribus ovatis acuminatis attenuatis inæqualiter argute serratis glabris, caulinis lanceolatis utrinque attenuatis subsessilibus serratis, racemis axillaribus pedunculatis foliosis, longitudine foliorum, calycibus oblongis turgidis multifloris, ligulis subelongatis.-Herb. Banks. mss.

In Canada. 4. v. s., in Herb. Banks. About three feet high; it is intermediate between this genus and Aster.

- glomerata. 43. S. caule humili simplicissimo, foliis glabris oblongo-lanceolatis serratis, racemo simplici e glomerulis axillaribus: superioribus capitato-congestis, calycibus turgidis multifloris. - Mich. fl. amer. 2. p. 117. In the mountains of Carolina. Michaux.
- 44. S. caule flexuoso glabro angulato, foliis ovatis acumiflexicaulis. natis serratis glabris, racemis erectis axillaribus, ligulis mediocribus. - Willd sp. pl. 3 p. 2064.

Icon. Pluk. alm. t. 235. f. 3. Rob. ic. 22.

β.S. Pluk alm. t. 235. f. 4. latifolia.

In woods and fields; common: Canada to Carolina. 4. Aug. - Oct. v. v.; v. s. in Herb. Banks. This is the most common species.

45. S. caule glabro tereti stricto, foliis lanceolatis serratis axillaris. glabris, racemis axillaribus subglobosis erectis, ligulis elongatis .- Herb. Banks. mss.

In shady woods: Canada to Virginia. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks.

Virgaurea. 46. S. caule erecto tereti superne ramoso et pubescente, foliis caulinis lanceolatis utrinque attenuatis serratis, inferioribus ellipticis pilosiusculis, racemis erectis, ligulis elongatis. Willd. sp. pl. 3. p. 2065.

Icon. Engl. bot. 301.

In abrador. Colmaster. 4. Aug.—Oct. v. s. in Herb. Dickson.

mulliradiata, 47. S. caule villosiusculo, foliis sessilibus lanceolatis glabris ciliatis, inferioribus apice serratis, racemo terminali

erecto, ligulis elongatis numerosis. Willd. sp. pl. 3. p 2066.

In Labrador and Hudson's Bay. 2. Aug. - Oct. v. s. in Herb. Dickson et Banks.

48. S. caule simplici erecto glabro, foliis lanceolatis serratis glabris basi attenuatis elongatis, racemo erecto. Herb. Banks, mss.

humilis.

In North America. 4. v. s. in Herb. Banks.

49. S. caule piloso tereti, foliis lanceolatis subtus pilosiusculis, racemis erectis, ligulis elongatis. Herb. Banks. elata.

In North America. 2. v. s. in Herb. Banks.

50. S. caule foliisque ovato-oblongis pilosis scabris, caulinis integerrimis, infimis serratis, ramis floriferis paniculatis, racemis compactis, ligulis elongatis. Willd. sp. pl. 3. p 2067.

rigida.

Icon. Herm. parad. 243.

rough; flowers large.

In the tract of mountains: New Jersey to Carolina. 4. Aug .-- Oct. v. v.; v. s. in Herb. Banks. et Lambert. Flowers large; leaves very rough.

51. S. foliis radicalibus ovato-oblongis petiolatis, caule nu- noveboracendiusculo ramoso fastigiato. Willd. sp. pl. 3. p. 2067. In sandy fields and woods. 4. Sept. Oct. v. v. Leaves

636. ASTER. Gen. pl. 1291.

\* Foliis integerrimis.

1. A. foliis lineari-lanceolatis 3-nervibus punctatis acutis hussopifolius. margine scabris, ramulis corymboso-fastigiatis coarctatis, radio sub-5-floro, calycibus imbricatis disco duplo brevioribus. Willd. sp. pl. 3. p. 2022.

In sandy fields and woods: New Jersey to Carolina. 4. Aug. - Oct. v.v.; v. s. in Herb. Banks. et Lambert. From a foot to two high; flowers in a close and flattened corymb; ray white, with a tinge of purple;

disk yellow.

2. A. foliis lineari-lanceolatis obsolete trinervibus integerrimis obtusis margine scabris, ramis corymboso-fastigiatis, floribus sessilibus aggregatis, radio 5-floro, calycibus disco brevioribus imbricatis, squamis oblongis obtusis adpressis apice subreflexis. - Willd. sp. pl. 3. p. 2024.

solidaginoides.

Conyza linifolia. Sp. pl. 1205.

Icon. Pluk. alm. t. 79. f. 2.

In dry swamps and on the borders of woods: Pensylvania to Carolina. 21. Aug.—Oct. v. v.; v. s. in Herb. Banks. et Lambert. About two feet high; the scales of the calyx white, with green tips; rays long, white.

tordifolius.

3. A. foliis cuneato-obovatis acutis enervibus utrinque scabris tortuoso-patulis, corymbo composito subfastigiato, calycibus cylindricis imbricatis basi bibracteatis, squamis oblongis acutiusculis adpressis, radio 5-floro.—Mich. fl. amer. 2. p. 109.

Conyza bifoliata. Walt. fl. car. 204.

In Lower Carolina and Georgia. 4. Aug.—Oct. v. s. in Herb. Enslen. About a foot high; flowers the size of the preceding, rays white.

ledifolius.

4. A. foliis lineari-lanceolatis basi attenuatis enervibus scabriusculis margine revolutis, ramis corymbosis, ramulis filiformibus unifloris nudiusculis, calycibus laxis imbricatis disco duplo brevioribus, foliolis acutissimis, radio sub-20-floro.

A. nemoralis. Ait. kew. 3. p. 198.

uniflorus.

 $\beta$ . A. caule simplicissimo unifloro.

A. uniflorus. Mich. fl. amer. 2. p. 110?

In sphagnous bogs and about mountain-lakes: Canada to New Jersey. 4. Sept. Oct. v. v.; v. s. in Herb. Banks, et Lambert. About a foot high; flowers middle-sized; disk yellowish white; rays lilac or reddish-purple, twice the length of the disk. Sometimes the leaves have a small indenture on each side.

rigidus.

5. A. foliis linearibus mucronatis subcarinatis rigidis margine scabro-ciliatis, caulinis reflexis, rameis patentibus subulatis, caule erecto superne subramoso, ramulis 1-floris corymbosis, calycibus imbricatis disco duplo brevioribus, squamis carinatis obtusiusculis, radiis sub-10-floris reflexis.—Willd. sp. pl. 3. p. 2032. Mich. fl. amer. 2. p. 118.

A. nemoralis. Willd. sp. pl. 3. p. 2021. excl. syn. Aiton.

A. linariifolius. Herb. Banks. et Lambert.

Icon. Pluk. alm. t. 14. f. 7.

In sandy fields and pine-barrens: New Jersey to Carolina. 21. Aug.—Oct. v. v.; v. s. in Herb. Banks. et Lambert. About a foot or less high; flowers nearly the size of the preceding, rays a beautiful pale violetblue, disk yellow.

6. A. foliis crebris linearibus mucronatis enervibus impunc- linariifolius. tatis carinatis scabris rigidis, rameis recurvatis, caule subdecumbente, ramis fastigiatis 1-floris, calycibus imbricatis longitudine disci. - Willd. sp. pl. 3. p. 2024. Mich. fl. amer. 2. p. 110.

A. squarrosus. Herb. Banks. mss.

In dry, sandy and gravelly fields, and among rocks: Pensylvania to Carolina. 21. Aug.-Nov. v. v.; v. s. in Herb. Banks. Resembles the preceding, but is more branching and of lower growth; the stems are rough, and generally of a purple colour; leaves more crowded, smaller, and more reflex; flowers of the same colour, but smaller, and not raised on almost naked peduncles.

7. A. foliis angusto-linearibus enervibus impunctatis glabris graminifolius. erectis, ramulis terminalibus nudiusculis 1-floris, calycibus laxis discum subæquantibus.-Herb. Banks.

Nov.

At Hudson's Bay. 4. Aug. Sept. v. s. in Herb. Banks. Flowers pale-purple; not above six inches high.

8. A. foliis linearibus enervibus punctatis scabris reflexo-patentibus, ramis corymboso-fastigiatis foliosis, calycibus imbricatis brevibus, radiis disco subæqualibus.-Willd. sp. pl. 3. p. 2024.

In dry shady woods and exsiccated swamps: Pensylvania to Virginia. 21. Sept.—Nov. v. v. About eighteen inches or two feet high; flowers the size of a

large daisy; rays white or faintly purple.

9. A. foliis lineari-lanceolatis albo-villosis, caule ramoso villoso, ramis recurvato-patulis, ramulis subsecundis unifloris, calycibus oblongis laxis imbricatis, squamis lanceolatis mucronatis — Willd sp. pl. 3. p. 2025.

A. villosus. Mich. fl. amer. 2. p. 113.

In natural meadows of the Illinois country. 4. Aug. -Oct. +.

10. A. glaberrimus, parviflorus; caule paniculato, ramis multifloris, foliis lineari-subulatis, calycibus cylindraceis, ligulis radii minutis. Mich. fl. amer. 2. p. 111. In salt-marshes: Pensylvania to Carolina. 4. Aug.—

11. A. foliis lineari-lanceolatis utringue attenuatis acuminatis, caule pubescente paniculato erecto, ramis paucifloris, calycibus imbricatis, squamis linearibus acutis adpres-

sis. Willd. sp. pl. 3. p. 2025.

pilosus.

linifolius.

subulatus.

foliolosus.

Icon. Dill. elth. t. 35. f. 39?

In dry barren fields and on road sides: Canada to Carolina. 4. Aug.—Oct. v.v.; v.s. in Herb. Lambert. Flowers small, white; scarcely a distinct species from the following. There is no specimen of it in the Banksian Herbarium.

senuifolius.

12. A. foliis lineari-lanceolatis utrinque attenuatis margine hispidis, caule glabro ramoso erecto, ramulis unifloris, calycibus imbricatis, squamis oblongis acutis laxis. Willd. sp. pl. 3. p. 2026.

Icon. Pluk. alm. 78. f. 5.

On road sides and barren fields. Aug.—Nov. v. v.; v. s. in Herb. Banks. et Lambert. Flowers the same as the preceding, which I consider only a variety of the present species.

dumosus.

violaceus.

13. A. foliis linearibus glabris, ramulorum brevissimis, ramis paniculatis, calycibus cylindraceis arcte imbricatis. Willd. sp. pl. 3. p. 2026.

a. A. radio pallide violaceo, caule pubescente. Ait. kew. 3.
p. 202.

albus.

β. A. radio albo, caule glabro. Ait. l. c. Icon. Herm. parad. 95. Pluk. alm. t. 78. f. 6.

In dry barren fields and sand-barrens: New England to Carolina. 4. Aug.—Nov. v. v.; v. s. in Herb. Banks. et Lambert. Flowers small, rays white, disk yellow.

ericoides.

14. A. foliis linearibus glaberrimis, ramulorum subulatis approximatis, caulinis elongatis, calycibus subsquarrosis, foliolis acutis, caule glabro. *Willd. sp. pl.* 3. p. 2027.

In barren grounds and on road sides; common: Canada to Carolina. 4. Aug.—Nov. v. v.; v. s. in Herb. Banks. et Lambert. Flowers the size and colour of the preceding.

multiflorus.

15. A. foliis linearibus glabriusculis, caule ramosissimo diffuso pubescente, ramulis secundis, calycibus imbricatis, squamis oblongis squarrosis acutis. Willd. sp. pl. 3. p. 2027.

Icon. Dill. elth. t. 36. f. 40.

In dry fields, and on road sides: Canada to Carolina.

4. Aug.—Nov. v. v.; v. s. in Herb. Banks. et
Lambert. Probably only a variety of the preceding.

ciliatus.

16. A. foliis ciliatis, caulinis lineari-lanceolatis nervosis, rameis brevissimis lanceolatis 3-nervibus, caule ramoso

pubescente, ramis paniculatis, calycibus imbricatis, squamis spathulatis squarrosis. Willd. sp. pl. 3. p. 2027.

In North America. Muhlenberg. 4. +. Resembles

the preceding one.

17. A. cano-pubescens; foliis linearibus, panicula corymbosa ramosissima foliosa, calycibus imbricatis acutissimis disco longioribus.

On the banks of the Missouri. 4. Aug.—Nov. v. s.

Flowers the size of a daisy, rays pale purple.

18. A. foliis remotis linearibus amplexicaulibus erectis glaberrimis margine scabris, pedunculis fere nudis, calycibus squarrosis basi foliis 2. suffultis. - Willd. sp. pl. 3. p. 2033.

In marshes and swamps of Lower Carolina. 4. Aug. -Nov. v. s. in Herb. Banks. et Lambert. Flowers

large, rays blue, disk yellow.

19. A. glaberrimus; foliis subulato-linearibus subcarnosis sparsiflorus. subreflexis, caule tenui ramosissimo, ramis ramulisque patulis setaceis 1-floris, squamis pedunculorum divaricatis subulatis, calycibus imbricatis, squamis adpressis acutis.—Mich. fl. amer. 2. p. 112.

In salt-marshes: New York to Carolina. 4. Sept .-Nov. v. v. Resembles the preceding one; flowers smaller; rays pale purple or white, disk brownish-

yellow.

20. A. humilis; radice repente, caulibus debilibus simplicibus, foliis longe lanceolatis glabriusculis, radicalibus spathulatis, corymbo terminali incompte rarifloro, calycis squamis lineari-oblongis obtusiusculis. Mich. fl. amer. 2. p. 113.

In woods of North Carolina, in the county of Burke. Michaux.

21. A. foliis creberrimis linearibus obtusis reflexis margine hispidis, caule ramoso diffuso glabro, ramulis unifloris, calycibus imbricatis, squamis lineari-spathulatis obtusis.—Willd. sp. pl. 3. p. 2028. Mich. fl. a-

mer. 2. p. 112.

In dry barren soil in Lower Carolina. 2. Aug.—Nov. v. s. Resembles the following species; flowers bright blue.

22. A. foliis creberrimis ovatis acuminatis reflexis margine hispidis, caule ramoso hirto, ramulis unifloris, calycanescens.

paludosus.

surculosus.

coridifolius.

squarrosus.

cibus imbricatis, squamis lineari-cuneatis acutis squatrosis. Willd. sp. pl. 3. p. 2028. Walt. fl. car. 209.

In pine-barrens of Lower Carolina. 4. Aug.—Nov. v. v.; v. s. in Herb. Lambert. Has a striking resemblance to A. reflexus from the Cape of Good Hope, and is a very ornamental plant; flowers blue and large:

concolor.

23. A. foliis oblongo-lanceolatis utrinque cano-pubescentibus, caule simplicissimo erecto pubescente, racemo terminali, calycibus imbricatis, squamis lanceolatis sericeis adpressis. Willd. sp. pl. 3. p. 2029.

In sandy pine and oak woods near the sea-coast: New Jersey to Florida. 2. Aug.—Nov. v.v.; v.s. in Herb. Banks. et Lambert. About a foot high; flowers, both ray and disk, of an agreeable reddish-purple. This is one of the handsomest of the American Asters, and highly deserves to be introduced as an ornamental plant.

sericeus.

24. A. foliis oblongo-lanceolatis sessilibus sericeo-tomentosis, caule gracili decumbente laxe ramoso, ramis ramulisve subunifloris, calycibus foliaceis subsquarrosis.—Willd. sp. pl. 3. p. 2016.

A. argenteus. Mich. fl. amer. 2. p. 111.

Icon. Vent. hort. cels. t. 33.

On the banks of rivers, among rocks, in the Illinois country, and on the Mississippi and Missouri. 4. Sept. Oct. v. s. in Herb. Lambert. A beautiful species; leaves resemble those of Protea argentea; flowers large, rays a fine purple, disk pale-yellow.

reticulatus.

25. A. undique cano-tomentosus; foliis lanceolato-oblongis utrinque acutis sessilibus margine revolutis, subtus reticulato-venosis triplinervibus, caule superne ramoso, ramis apice corymboso-racemifloris, pedunculis subaphyllis, calycibus imbricatis laxiusculis, squamis acutissimis.

In dry swamps of Carolina and Georgia. 2. Aug.—Oct. v. v. About three feet high; flowers middle-sized, rays and florets white.

cornifolius.

26. A. glaber; foliis oblongo-ovatis acuminatis brevi-petiolatis margine scabris, caule glabro, panicula pauciflora, ramis bifloris, calycibus subimbricatis.—Willd. sp. pl. 3. p. 2039.

In Pensylvania. Muhlenberg. 4. +.

humilis. 27. A. foliis subrhomboideis ovali-lanceolatis utrinque acu-

minatis subpetiolatis glabris margine hispidis, corymbo divergenti-dichotomo nudiusculo paucifloro, calycibus laxis imbricatis, radiis 8-floris.—Willd. sp. pl. 3. p. 2038.

A. infirmus. Mich. fl. amer. 2. p. 109.

A. divaricatus. Willd. sp. pl. 3. p. 2044. secundum specimen Gronov. et Banks.

Icon. Willd. hort. berol. 67. Pluk. alm. t. 79. f. 1.

In shady and rocky places: Canada to Carolina. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks. et Gronov. Not above a foot high; flowers clear white, and large in proportion to the plant.

28. A. foliis lanceolatis basi attenuatis acuminatis margine amygdalinus. scabris, caule simplici apice corymboso-fastigiato, calycibus laxis imbricatis, squamis lanceolatis obtusis.—

Lam. encycl. 1. p. 305.

A. umbellatus. Ait. kew. 3. p. 199.

On the banks of rivers and in swamps: Canada to Carolina. 4. Sept.—Nov. v. v.; v. s. in Herb. Banks. et Lambert. Rays large, white.

29. A. foliis lineari-lanceolatis subintegerrimis glabris, caule glabro apice paniculato, calycibus laxis imbricatis, squamis acutis apice patulis.—Willd. sp. pl. 3. p. 2030.

A. præaltus. Lam. encycl. suppl. 1. p. 493.

Icon. Rob. ic. 307.

In low grounds, on the side of ditches: New York to Virginia. 4. Aug.—Oct. v. v.; v. s. in Herb. Banks. et Lambert. From four to six feet high; flowers middle-sized, reddish-blue.

30. A. foliis lanceolatis subamplexicaulibus apice attenuatis margine scabris, caule a basi ramoso erecto hispido, ramulis pilosis, calycinis squamis laxis linearibus acutis æqualibus.—Willd. sp. pl. 3. p. 2030.

In dry swamps and copses: New York and Pensylvania.

2. July—Sept. v.v.; v.s. in Herb. Banks. et Lambert. Not above two feet high; flowers resembling

the preceding, rays blue.

31. A. foliis lineari-lanceolatis pilosis amplexicaulibus basi novæ angliæ. auriculatis, caule simpliciusculo piloso stricto, floribus subsessilibus terminalibus confertis, calycinis squamis laxis coloratis lanceolatis disco longioribus.—Willd. sp. pl. 3. p. 2032.

Icon. Herm. parad. 98.

salicifolius.

æstivus.

On the banks of rivers and borders of meadows: Canada to Virginia. 4. Sept.—Nov. v.v.; v. s. in Herb. Banks, et Lambert. A highly ornamental species; in rich moist soil it will grow to the beight of ten feet: flowers large, rays blue or purple, and almost every shade between red and blue.

eyaneus.

32. A. foliis lineari-lanceolatis amplexicaulibus lævigatis. caule virgato-paniculato glaberrimo, ramis racemifloris, calycinis squamis laxis lanceolatis discum æquantibus, interioribus apice coloratis.—Hoffm. phytogr. 1. p. 71. t. B. f. 1.

A. rubricaulis. Lam. encycl, 1. p. 305. A. spurius, Willd. sp. pl. 3. p. 2032. A. Novæ angliæ. B. Ait. kew. 3. p. 201.

In old meadows and dry swamps: New England to Ca-4. Sept. - Nov. v.v.; v. s. in Herb. Lamrolina. bert. From three to four feet high; flowers large, in great abundance, of various tints of blue and purple; the handsomest of the genus.

carolinianus. 33. A. foliis oblongis utrinque attenuatis sessilibus, caule subscandente ramosissimo, ramulis pubescentibus summitate paucifloris, calycinis squamis lanceolatis squarrosis.—Willd. sp. pl. 3. p. 2017. Walt. fl. car. 208.

In shady moist hedges and swamps: Carolina and Geor-4. h. Aug. Sept. v. v. From six to fifteen feet high; flowers large; rays purple or flesh-co-

loured, disk yellowish-purple.

grandiflorus. 34. A. foliis linearibus rigidis acutiusculis subamplexicaulibus, rameis reflexis, margine ciliato-hispidis, caule ramoso hirto, ramis unifloris, calycinis squamis squarrosis lineari-lanceolatis. Willd. sp. pl. 3. p. 2033.

Icon. Mill. ic. 282. Dill. elth t. 36. f. 41. Mart. cent.

19. Hoffm. phyt. 1. p. 65. t. A. f. 1.

21. Sept. In dry sandy woods: Virginia to Carolina. -Nov. v.v.; v. s. in Herb. Banks. About two feet high; leaves small; flowers large, rays purple and blue, disk yellow.

phlogifolius. 35. A. foliis lanceolatis cordatis amplexicaulibus subtus pubescentibus, margine scabris, caule simplicissimo pubescente, panicula terminali laxa rariflora, calycinis squamis laxis imbricatis lanceolatis.—Willd. sp. pl. 3. p. 2034.

> A. amplexicaulis. Mich. fl. amer. 2. p. 114. In shady moist places: New Jersey to Virginia.

Aug.-Nov. v. v. From eighteen inches to a foot high; flowers middle-sized, rays violet.

36. A. foliis oblongo-lanceolatis ciliatis cordatis amplexicaulibus utrinque scabris pilosis, caule ramoso hirto, ramis patentibus elongatis paucifloris microphyllis, calycinis squamis imbricatis lanceolatis patulis. - Willd. sp. pl. 3. p. 2034.

A. diversisolius. Mich. fl. amer. 2. p. 113?

In hedges, old drying up swamps, and sometimes among rocks: New England to Carolina. 4. Sept.-Nov. v. v.; v. s. in Herb Banks. et Lambert. From a foot to two high; flowers middle-sized, rays purple or blue, disk yellow.

## \*\* Foliis cordatis ovatisque, serratis.

37. A. foliis oblongis cordatis amplexicaulibus integerrimis pilosis subundulatis, inferioribus ovatis cordatis subserratis petiolatis, petiolis alatis, caule paniculato hispido, ramulis secundis foliosis unifloris. Willd. sp. pl. 3. p. 2035.

Icon. Hoffm. phyt. 1. t. C. f. 1. Herm. parad. 96.

In dry woods and old fields: New England to Carolina. 24 . Sept.—Nov. v.v.; v. s. in Herb. Banks. et Lambert. Flowers smaller than the preceding; rays pale violet.

38. A. foliis oblongo-lanceolatis acuminatis sessilibus medio sagittifolius. serratis, radicalibus oblongis cordato-sagittatis serratis petiolatis, caule ramoso glabro, squamis calycinis laxis imbricatis lanceolatis. - Willd. sp. pl. 3. p. 2035.

In North America. Wedemeyer. 4. +. blue, the size of the following species.

39. A. foliis ovato-lanceolatis subserratis petiolatis glabris, paniculatus, radicalibus ovato-cordatis serratis scabris petiolatis, petiolis nudis, caule ramosissimo glabro, ramulis pilosis, calycibus laxis subimbricatis. Willd. sp. pl. 3. p. 2035.

Icon. Corn. canad. 65. Moris. hist. 3. s. 7. t. 22. f. 34. In meadows, hedges, and on the borders of woods: Canada to Virginia. 4. Aug.—Nov. v. v.; v. s. in Herb. Banks. et Lambert. From two to four feet high; flowers rather small, but in great abundance, changing from white to blue in the ray, and from yellow to purple or brown in the disk, which gives the whole plant a beautiful variegated appearance.

patens.

undulatus.

cordifolius. 40. A. foliis cordatis subtus pilosis argute serratis petiolatis, petiolis alatis, caule paniculato glabriusculo, panicula divaricata, calycibus laxis subimbricatis. — Willd. sp. pl. 3. p. 2036.

In shady woods, throughout the mountains: Canada to Florida. 4. Sept.—Nov. v. v.; v. s. in Herb. Banks. Flowers small, white, or pale purple.

41. A. foliis ovatis argute serratis acuminatis glabriusculis, corymbosus. inferioribus cordatis petiolatis, petiolis nudis, caule glabro superne corymboso-fastigiato, ramis pilosis, calycibus oblongis imbricatis, squamis obtusis arcte adpressis. - Willd. sp. pl. 3. p. 2036.

In shady woods: Canada to Florida. 4. Aug.—Nov. v.v.; v. s. in Herb. Banks. et Lambert. A foot or two high; flowers white, larger than the preceding.

macrophyllus. 42. A. foliis ovatis petiolatis serratis scabris, summis ovatocordatis sessilibus, inferioribus cordatis petiolatis, petiolis submarginatis, caule ramoso diffuso, calycibus cylindricis arcte imbricatis, squamis oblongis acutis. -Willd. sp. pl. 3. p. 2037.

In shady woods about rocks; Canada to Virginia. Sept.-Nov. v. v.; v. s. in Herb. Banks. et Lambert. A foot or two high; flowers above the middle size, rays white, and sometimes blue.

heterophyllus. 43. A. foliis glabris, caulinis ovatis subcordatis acuminatis profunde serratis apice integerrimis, ramorum ovatooblongis subserratis, ramulorum lanceolatis minutissime reflexo-patentibus, caule paniculato glabro, calycibus arcte imbricatis. Willd. enum. 882.

In North America. Willdenow. 4. +.

\*\*\* Foliis lanceolatis ovatisque, inferioribus serratis.

amplexicau- 44. A. foliis ovato-oblongis acutis amplexicaulibus cordatis lis. serratis glabris, caule paniculato glabro, ramulis 1-2floris, calycinis squamis lanceolatis arcte imbricatis.— Willd. sp. pl. 3. p. 2046.

A. pensylvanicus. Lam. encycl. suppl. 1. p. 498.

On the borders of woods, in sandy soil: New Jersey to Virginia. 4. Sept.—Nov. v. v. Flowers middlesized, blue.

45. A. foliis amplexicaulibus spathulato-lanceolatis acuminaprenanthoinatis medio serratis basi cordatis, ramulis pilosis, calydes. cinis squamis lanceolatis squarrosis.—Willd. sp. pl. 3. p. 2046.

In Pensylvania. Muhlenberg. 4. +. Flowers blue.

46. A. foliis amplexicaulibus lanceolatis, inferioribus subserratis glabris, ramulorum linearibus squarrosis, calycibus squarrosis disco brevioribus, squamis lineari-cuneatis.— Willd. enum. 884.

In North America. Willdenow. 4. +. Rays violet;

disk yellowish-brown.

47. A. foliis subamplexicaulibus lato-lanceolatis subserratis lævibus, caule ramosissimo glabro, ramulis multifloris, calycinis squamis lanceolatis laxis discum subæquantibus.—Willd. sp. pl. 3. p. 2046.

In swamps and wet woods: Pensylvania to Virginia. 4. Sept.—Nov. v.v.; v. s. in Herb. Lambert. Flowers large, pale rose- or flesh-cololoured, with a tinge of

purple.

48. A. foliis subamplexicaulibus lato-lanceolatis subserratis glabris, radicalibus medio serratis, caule ramosissimo glabro, calycinis squamis lanceolatis laxis disco brevio-

ribus. Willd. sp. pl. 3. p. 2045.

In old fields and on the borders of woods: New Jersey to Carolina. 4. Aug.—Oct. v. v.; v. s in Herb. Lambert. A beautiful species; flowers large and in great abundance, disk yellow, rays white, changing to a deep violet; so that at the same time there are flowers of different colours on the same plant; which has a very pleasing effect.

49. A. foliis subamplexicaulibus, superioribus lanceolatis acuminatis integerrimis, inferioribus lanceolatis basi angustatis serratis, ramulis virgatis, calycibus disco brevioribus laxis, caule glabro. Willd. sp. pl. 3.

p. 2045.

Icon. Pluk. alm. t. 326. f. 1. Herm. lugdb. 67.

In old fields and woods: Pensylvania to Virginia. 4. Aug.—Oct. v.v.; v. s. in Herb. Lambert. Flowers middle-sized; rays deep purple, disk yellow, changing to purple.

50. A. foliis subamplexicaulibus remotis oblongis integerrimis lucidis, radicalibus subserratis, ramis simplicibus unifloris, calycibus imbricatis, foliolis subcuneiformibus acutis apice incrassatis, caule glabro angulato.—Willd. sp. pl. 3. p. 2044.

In woods and on the sides of ponds and ditches: New York to Virginia. 24. Sept.—Nov. v. v. Rays

blueish-purple.

adulterinus.

lævigatus.

versicolor.

mutabilis.

lævis.

concinnus.

rufescens.

51. A. foliis lanceolatis subamplexicaulibus inferioribus subserratis glabris, caule simplici apice paniculato, calycibus arcte imbricatis. Willd. enum. 884.

In fields and woods: New York and Pensylvania. 4. Sept.—Nov. v. v.; v. s. in Herb. Lambert. Leaves resembling those of Phlox maculata; rays blueish-

purple.

puniceus.

52. A. foliis amplexicaulibus lanceolatis serratis scabriusculis, ramis paniculatis, calycibus laxis discum superantibus, foliolis lineari-lanceolatis subæqualibus, caule hispido. Willd. sp. pl. 3. p. 2040.

Icon. Herm. lugdb. 651.

purpureus. a. A. septempedalis, caulibus saturate purpureis. Ait. kew. 3.

p. 208

A. amænus. Lam. encycl. 1. p. 306.  $\beta$ . A. octopodalis, caulibus e viridi-rufescentibus. Ait. l. c.

A. hispidus. Lam. encycl. 1. p. 307.

On the banks of rivers and ditches, particularly near salt-water: Canada to Carolina, and in the range of mountains, about lakes. 4. Sept.—Nov. v. v.; v. s. in Herb. Banks. et Lambert. From three to ten feet high; flowers large, purple or blue.

floribundus. 53. A. foliis subamplexicaulibus lanceolatis, inferioribus serratis, caule glabro, ramis corymbosis, ramulis multifloris pilosis, calycinis squamis laxis lanceolatis imbrica-

tis. Willd. sp. pl. 3. p. 2048. In North America. Willdenow. 4. +. Resembles

the following species.

novi lelgii. 54. A. foliis subamplexicaulibus lanceolatis glabris margine scabris, inferioribus subserratis, ramis subdivisis, calycibus laxe-imbricatis, foliolis lineari-lanceolatis, caule tereti glabro. Willd. sp. pl. 3. p. 2048.

Icon. Herm. lugdb. 69.

In hedges and old fields: New England to Virginia.  $\mathcal{U}$ . Aug.—Oct. v.v.; v.s. in Herb. Lambert. Flowers middle-sized, pale purple.

bellidiflorus. 55. A. foliis amplexicaulibus angusto-lanceolatis supra scabris, inferioribus subserratis, caule ramosissimo, calycis squamis lanceolatis patentibus. Willd. enum. 886.

In North America. Willdenow. 4. +. Ray pale red, disk yellow, changing to brown.

spectabilis. 56. A. foliis lanceolatis scabriusculis subamplexicaulibus, inferioribus medio serratis, ramis corymbosis, foliolis

calycinis laxis foliaceis subcuneiformibus acutiusculis

squarrosis. Willd sp. pl. 3. p. 2048.

In low meadows, on the sides of woods: Pensylvania to Virginia. 24. Aug.—Nov. v. v.; v. s. in Herb. Lambert. About two feet high; flowers large, blue.

57. A. foliis oblongo-lanceolatis acuminatis sessilibus glabris margine scabris, inferioribus serratis, ramis corymbosis glabris, ramulis unifloris, calycinis squamis lanceolatis acuminatis patentibus.— Willd. sp. pl. 3. p. 2049.

In low grounds and on the banks of ditches: New York to Virginia. 4. Sept.—Nov. v. v.; v. s. in Herb. Lambert. About three feet high; flowers large, blue.

58. A. foliis sessilibus serratis glabris spathulato-lanceolatis basi attenuatis et margine utroque latere deflexis, ramis divaricatis, calycibus laxis, foliolis lanceolato-linearibus subæqualibus glabris.——Willd. sp. pl. 3. p. 2049.

In low overflowed grounds: New York to Virginia; rare. 4. Oct. Nov. v.v. Flowers below the mid-

dle size; rays pale blue.

59. A. foliis subamplexicaulibus oblongo-lanceolatis acuminatis serratis glabris, caule pyramidato-ramoso, ramis axillaribus racemifloris folio vix longioribus, pedunculis tomentosis nudis, calycibus laxis subæqualibus disco brevioribus.—Herb. Banks. mss.

In Canada. 4. Oct. Nov. v. s. in Herb. Banks. Flowers above the middle size; rays pale purple.

60. A. foliis lato-lanceolatis inferne attenuatis integris superne inæqualiter serratis longissime acuminatis, caule simplici flexuoso anguloso, panicula corymbosa divaricato-dichotoma, calycinis foliolis laxis linearibus disco brevioribus.—Mich. fl. amer. 2. p. 109.

a. A. caule altiore, panicula multiflora foliosa.

A. latifolius. Herb. Banks. et Lambert.

β. A. caule pumilo, corymbo paucifloro nudo vix foliis altiore.

In Canada and on the Allegany mountains, in rocky shady situations. β. On the highest mountains of Virginia and Carolina. 4. Aug.—Oct. v. v. About a foot or more high; flowers middle-sized; rays white.

61. A. foliis oblongis 3-nervibus basi angustatis acutis, superioribus sessilibus subintegerrimis, inferioribus petiolatis serratis, caule simplici apice corymboso, calyci-

serotinus.

tardiflorus

blandus.

acuminatus.

elatior.

pumilus.

conyzoides.

bus cylindricis squarrosis, radiis 5. brevissimis.—Willd. sp. pl. 3. p. 2043.

A. marylandicus. Mich. fl. amer. 2. p. 108.

Conyza asteroides. Sp. pl. 1206.

In fields and woods: Pensylvania to Carolina. 4. Aug. —Oct. v. v. About a foot high; flowers small; rays only five, white.

peregrinus.

- 62. A. foliis sessilibus remotis oblongo-lanceolatis sensim acutis glabris, caule erecto subsimplici glabro superne birto summitate 1—3-floro, calycinis squamis lanceolato-linearibus villosis acutissimis laxis longitudine disci, radiis numerosis.—Herb. Banks. mss.
  - On the north-west coast: Unalashka. D. Nelson. 4. v. s. in Herb. Banks. Flowers large, violet.

Radula.

63. A. foliis lanceolatis serratis acuminatis rugosis scaberrimis, caule erecto angulato simplici, corymbo terminali, calycibus imbricatis, foliolis lanceolatis obtusiusculis subsquarrosis.— Willd. sp. pl. 3. p. 2044.

In Nova Scotia and on the high mountains of New York and Pensylvania.  $\mathcal{U}$ . Sept —Nov. v. v. s. in Herb. Banks. et Lambert. Flowers middle size; rays

short, white.

strictus.

64. A. foliis sessilibus angusto-lanceolatis serratis scabris, caule superne uno aut paucifloro, calycinis squamis imbricatis adpressis oblongis acutis discum subæquantibus.—Herb. Banks. mss.

A. biflorus. Mich. fl. amer. 2. p. 114?

- In Labrador, at Hudson's Bay, and on high mountains in Pensylvania. 4. Sept. Oct. v. v.; v. s. in Herb. Banks. From four inches to a span high; flowers middle-sized; rays pale violet, disk brownish-yellow.
- Tradescanti. 65. A. foliis lanceolatis serratis sessilibus glabris, ramis virgatis, calycibus imbricatis, caule tereti glabro. Willd. sp. pl. 3. p. 2047.

A. vimineus. Lam. encycl. 1. p. 306.

- In hedges and dry swamps; frequent: Canada to Virginia. 2. Aug.—Oct. v. v.; v. s. in Herb. Lambert. Three or four feet high; flowers very small; rays white, and sometimes pale purple.
- recurvatus. 66. A. foliis sessilibus angusto-lanceolatis basi attenuatis, inferioribus medio serratis, caule ramoso glabro recurvato, calycinis squamis laxis imbricatis lineari-lanceolatis subæqualibus.— Willd. sp. pl. 3. p. 2047.

A. salicifolius. Lam. encycl. 1. p. 306.

- In fields and on road sides: New England to Pensylvania. 2. Sept.—Nov. v. v. Resembles the preceding; flowers pale blue.
- 67. A. foliis lineari-lanceolatis acuminatis margine scabris, infimis subserratis, caule paniculato, ramulis unifloris, calycibus laxe imbricatis, foliolis lanceolatis. Willd. enum. 886.

In North America. Willdenow. 4. Sept.-Nov. v. s. in Herb. Lambert. Flowers of middle size; rays pale lilac, disk yellow, changing to red.

68. A. foliis lineari-lanceolatis acuminatis margine scabris, infimis subserratis, caulinis subreflexis, rameis patentissimis, caule laxo apice paniculato, calycibus imbricatis, foliolis lanceolatis acutis apice reflexis. Willd. enum. 886.

In low sandy fields: New Jersey to Virginia. 2. Sept. -Nov. v.v. Rays white; disk yellow.

60. A. foliis lanceolatis acuminatis margine scabris, caulinis apice serratis, rameis integerrimis, caule glaberrimo apice paniculato, calycibus laxe imbricatis, foliolis lineari-subulatis. Willd. enum. 887.

In North America. Willdenow. 4. +. Rays white, disk yellow.

70. A. foliis linearibus integerrimis, radicalibus oblongis sub- polyphyllus. serratis, caule ramosissimo pubescente, calycibus laxe imbricatis. Willd. enum. 888.

In North America. Willdenow. 4. +. Rays white, disk yellow, changing to red or brown.

71. A. foliis lanceolato-linearibus sessilibus glabris, infimis subserratis, ramulorum lanceolatis, caule paniculato glabro, ramis virgatis, calycibus imbricatis. sp. pl. 3. p. 2050.

In swamps and ditches: Pensylvania to Virginia. 4. Aug.-Oct. v. v. From four to six feet high; flowers flesh-coloured.

72. A. foliis lineari-lanceolatis sessilibus integerrimis glabris, infimis lanceolatis subserratis, caule ramoso diffuso glabriusculo, calycibus imbricatis, foliolis lanceolatis subpatulis. - Willd. sp. pl. 3. p. 2050.

In North America. Willdenow. 4. Aug.-Nov. +. Resembles the preceding; flowers smaller, rays white, changing to a pale violet.

73. A. foliis linearibus acuminatis integerrimis, inferioribus dracunculoides.

eminens.

laxus.

simplex.

junceus.

lanceolatus.

lineari-lanceolatis subserratis, ramis corymbosis, calycibus imbricatis, caule glabriusculo. Willd. sp. pl. 3. p. 2050.

A. artemisiflorus. Lam. encycl. suppl. 1. p. 500.

In low grounds and on sides of ditches: New Jersey to Carolina. 4. Sept.—Nov. v. v.; v. s. in Herb. Lambert. About four feet or less high; flowers about half the size of No. 71, rays white.

74. A. foliis linearibus acuminatis integerrimis, radicalibus oblongis serratis, ramis corymboso-paniculatis, calycibus imbricatis squamis adpressis, caule glabriusculo. Willd. sp. pl. 3. p. 2051.

In North America. Muhlenberg. 4. v. s. in Herb. Lambert. About two feet high; flowers white, smaller than the preceding. This and the three preceding species are very nearly allied to one another, so much so that it is difficult to find sufficient cararacters to distinguish them, though their general appearance and the size of the flowers separate them at first sight.

75. A. foliis sessilibus lanceolatis serratis glabris, calycibus imbricatis, foliolis acutis, disco radii æquali, caule villosiusculo. Willd. sp. pl. 3. p. 2051.

In old barren fields: Canada and New England. 4. Aug.—Oct. v.v.; v.s. in Herb. Lambert.

76. A. foliis elliptico-lanceolatis serratis glabris, caulinis lineari-lanceolatis elongatis, ramis patentibus, calycibus imbricatis, caule pubescente. Willd. sp. pl. 3. p. 2052.

In old fields and barren woods: New York to Carolina. 4. Sept.—Nov. v. v.; v. s. in Herb. Lambert. From three to five feet high; flowers small; rays white, disk reddish-brown.

77. A. foliis elliptico-lanceolatis serratis glabris proportionatis, ramis patentibus, calycibus imbricatis, caule pubescente. Willd. sp. pl. 3. p. 2052.

In fields and hedges; frequent: Canada to Carolina. 4. Sept.—Nov. v. v.; v. s. in Herb. Lambert. Flowers white, small.

78. A. foliis elliptico-lanceolatis serratis glabris, ramulorum remotiusculis, ramis divaricatissimis pendulis, caule pubescente. Willd. sp. pl. 3. p. 2052.

In old fields; common. 4. Oct. Nov. v. v.; v. s. in Herb. Lambert. Resembles the preceding; but the

fragilis.

miser.

divergens.

diffusus.

pendulus.

stem forms a loose panicle with pendulous branches; the disk turns brown.

#### 637. DONIA. Ait. kew. ed. 2. t. 4. p. 82.

1. D. herbacea; foliis oblongis amplexicaulibus serratis, calycinis squamis apice filiformibus revoluto-squarrosis.

squarrosa.

In open prairies, on the banks of the Missouri. M. Lewis. 4. Aug. Sept. v. s. in Herb. Lewis.; v. v. cult. Flowers yellow, resembling those of Inula. The whole plant is viscous, and has a strong resiniferous or balsamic scent.

Caulis erectus, teres, albidus, corymboso-ramosus. Rami alterni, angulati, apice uni- aut triflori. Folia alterna, basi dilatata, amplexicaulia, oblonga, acuta aut obtusa, serrata, glabra, utrinque squamulis punctiformibus resiniferis obsita. Flores 1—3. in summitate ramulorum, corymbosi, flavi, ante explicationem copiose resiniferi. Calyx hemisphæricus, arcte imbricatus: Squamis apice filiformibus, revolutis et quasi caput Medusæ referentibus. Flosculi radii linearilanceolatæ, acutæ. Semina oblongo-obovata. Pappus: aristis 2—4. deciduis. Receptaculum planum, nudum, favulosum.

It approaches near to Aster glutinosus Cav. ic. 2. p. 53. t. 168. which is the Donia glutinosa Ait. kew. ed. 2. t. 4. p. 82. which I distinguish by the following diagnosis: Donia glutinosa: frutescens; foliis oblongo-obcuneatis sessilibus serratis, calycinis squamis linearibus erectis.

# 638. BEBERA. Willd. sp. pl. 3. p. 2125.

1. B. caule paniculato, foliis oppositis subbipinnatis glabris acutis.—Willd. sp. pl. 3. p. 2125.

Tagetes papposa. Mich. fl. amer. 2. p. 132.

Tagetes pumila. Hort. pisan.

Dyssodia glandulosa. Cav. demonstr. bot. p. 202.

On the overflowed banks of the Missouri and Mississippi. O. Aug. Sept. v.s. Flowers small, golden-yellow.

chrysanthe= moides.

### 639. ACTINELLA. Pers. syn. 2. p. 469.

Actinea. Juss. in annal. mus. 2. p. 425.

lanata.

1. A. undique lanato-tomentosa; foliis linearibus superne pinnatifidis, pedunculis elongatis unifloris, radiis bidentatis, seminibus glabris 5-gonis.

On the high lands of the Kooskoosky. M. Lewis. 4. June, July. v. s. in Herb. Lewis. Flowers orange-yellow. It resembles in habit Jussieu's Actinea, in

Annal. du mus. 2. t. 61. f. 2.

Planta omnibus partibus tomento albo lanato tecta. Caulis ramosus, teres. Rami alterni, superne subdivisi. Ramuli uniflori. Folia caulina alterna, linearia, superne dilatato-pinnatifida, dentata; ramea linearia, integra. Pedunculi terminales, elongati, superne incrassati. Flores aurantiaci, magnitudine Tagetidis erectæ. Calyx oblongus, simplex, polyphyllus: foliola 12—14. lineari-lanceolata, acuta. Corollulæ radii 12—14. oblongæ, bidentatæ, nervosæ: disci tubulosæ, concolores. Pappus: paleis 4—6. scariosis, albidis, acutis, interdum laceris. Semina prismatico-oblonga, 5-gona.

### 640. HELENIUM. Gen. pl. 1299.

autumnale.

 H. foliis lanceolatis serratis subdecurrentibus, caule superne corymboso, corollulis disci 5-fidis: radii planis reflexis.—Willd. sp. pl. 3. p. 2120.

pubescens.

Icon. Pluk. amalth. t. 372. f. 4. Corn. canad. 63. β. H. foliis pubescentibus. Willd. sp. pl. 3. p. 2121.

On the banks of rivers, ponds, and ditches: Canada to Carolina. 4. Oct. Nov. v. v. About two feet high; flowers bright yellow.

canaliculatum. 2. H. foliis lanceolatis serratis subdecurrentibus, caulibus simplicibus, corollulis disci 5-fidis: radii canaliculatis. Lamarch in journ. hist. nat. 213. t.35.

quadridentatum. 3. H. foliis lato-decurrentibus, inferioribus subpinnatifidis, superioribus lanceolatis integerrimis glabris, corollulis disci 4-dentatis — Willd. sp. pl. 3. p. 2121.

Rudbeckia alata. Jacq. ic. rar. t. 593.

Icon. Labillard. in act. soc. hist. nat. par. 1. t. 4.

On the banks of the Mississippi. 4. July, Aug. v. v. From three to four feet high; flowers smaller than the preceding.

#### 641. BOLTONIA. Gen. pl. 1309.

1. B. foliis integerrimis, floribus longe pedunculatis, seminibus ovalibus glabris submuticis.—Willd. sp. pl. 3. p. 2162.

asteroides.

Matricaria asteroides. Linn. mant. 116.

Chrysanthemum carolinianum. Walt. fl. car. 204.

Icon. L'Herit. sert. angl. t. 25. ined.

On the banks of ponds and swamps: Carolina and Illinois. 4. Aug.—Oct. v. s. Rays flesh-coloured; disk yellow.

glastifolia,

2. B. foliis inferioribus serratis, floribus breviter pedunculatis, seminibus obcordatis conspicue alatis pubescentibus, aristis pappi duabus ipsorum longitudine.—
Willd. sp. pl. 3. p. 2163.

Icon. L'Herit. sert. angl. t. 26. ined.

On the banks of rivers and ponds. Pensylvania to Virginia. 21. July, Aug. v. v. Resembles the preceding very much.

#### 642. SIEGESBECKIA. Gen. pl. 1320.

1. S. foliis sessilibus ovatis dentatis, floribus disci tridentatis triandris. Willd. sp. pl. 3. p. 2220.

flosculosa.

Icon. L'Herit. stirp. t. 19.

On the north-west coast. M. Lewis. O. July, Aug. v. s. in Herb. Lewis. Flowers yellow.

# 643. PHÆTHUSA. Gen. pl. 1319.

1. P. foliis oppositis ovatis acuminatis serratis triplinervibus, corymbo terminali brachiato.—Willd. sp. pl. 3. p. 2221.

americana.

Icon. Pluk. mant. t. 342.

In North America. 4. +. I strongly suspect this to be the same with Verbesina Siegesbeckia, although Michaux declares it to be different.

### 644. ECLIPTA. Gen. pl. 1316.

1. E. erecta, dichotoma, strigosa; foliis lanceolatis basi attenuatis rariter serratis, pedunculis geminis elongatis, calycinis foliolis ovatis acuminatis.—Willd. sp. pl. 3. p. 2217.

erecta.

Verbesina alba. Sp. pl. 1272.

Cotula alba. Syst. nat. 2. p. 564.

Icon. Dill. elth. t. 113. f. 137. Pluk. alm. t. 109. f. 1. Moris. hist. 3. s. 6. t. 13. f. 16.

In dry gravelly soil: Virginia to Florida. ⊙. June, July. v. v. Flowers small, white.

procumbens.

E. procumbente-assurgens; foliis longo-lanceolatis inferne angustatis rariter subserratis, pedunculis longius culis, calycinis foliolis acute-lanceolatis, flosculis 4-fidis.—Mich. fl. amer. 2. p. 129.

In Lower Carolina. O. July, Aug. v. s. Flowers small, white.

brachypoda.

3. E. divaricato-prostrata; foliis lanceolatis subserratis, pedunculis solitariis gemini-que brevibus, calycinis foliolis ovali-lanceolatis, flosculis 5-fidis.—Mich. fl. amer. 2. p. 130.

Amellus carolinianus. Walt. fl. car. 213.

In low sandy fields: Carolina. O. July, Aug. v. v.

### 645. ANTHEMIS. Gen. pl. 1312.

arvensis.

 A. receptaculis conicis, paleis lanceolatis, seminibus coronato-marginatis, foliis bipinnatis laciniis lanceolatolinearibus. Willd. sp. pl. 3/p. 2180.

Icon. Engl. lot. 602.

In waste grounds and on road sides: Pensylvania to Virginia. S. O. Aug. Sept. v. v. Rays white, disk yellow.

repens.

2. A. caule repente, foliis ovali-lanceolatis subintegris, pedunculis terminalibus unifloris longissimis, calycibus subæqualibus 10—12-phyllis.—Walt. fl. car. 211.

Spilanthus repens, Mich. fl. amer. 2. p. 131.

On overflowed banks of rivers: South Carolina. O. July—Sept. v.v. Flowers yellow.

### 646. ACHILLEA. Gen. pl. 1313.

Ptarmica.

1. A. foliis linearibus acuminatis æqualiter argute serratis glabris. Willd. sp. pl. 3. p. 2191.

Icon, Fl. dan. 643. Engl. lot. 757.

In open dry swamps: Canada and New York. 4. Aug. Sept. v. v. Flowers white.

asplenifolia.

A. foliis radicalibus bipinnatifidis, caulinis incisis, laciniis ovatis serrato-mucronatis obtusis.—Vent. hort. ccls 95.

In North America. Bosc. 4. +. Flowers rose-co-loured.

3. A. foliis bipinnatifidis pilosis laciniis linearibus dentatis Millefolium, mucronatis, caulibus sulcatis. Smith ft. brit. 2. p. 908. Willd. sp. pl. 3. p. 2208.

Icon. Fl. dan. 737. Engl. bot. 758.

v. v. Probably introduced from Europe. Flowers white or rose-coloured.

4. A. foliis bipinnatifidis villosis, pinnis confertissimis, laciniis lineari-lanceolatis integerrimis, corymbo composito. Willd. sp. pl. 3. p. 2209.

Icon. Bot. mag. 498 Gmel. it. 1. t. 25. f. 2.

On the banks of the Kooskoosky. M. Lewis. 4. June. v. s. in Herb. Lewis. Flowers yellow.

### 647. TETRAGONOTHECA. L'Herit. stirp. p. 177.

1. T. hirsutissima; foliis oppositis amplexicaulibus spathu- helianthoides. lato-ovatis, summis ovatis acuminatis dentatis triplinervibus.—Willd. sp. pl. 3. p. 2116.

Polymnia Tetragonotheca. Syst. veg. 658.

Icon. Dill. elth. t. 283. f. 365.

In fertile soil, on the borders of woods and along hedges:
Virginia to Florida. 4. July—Sept. v. v. From four to six feet high; flowers large, yellow.

# 648. HELIOPSIS. Pers. syn. 2. p. 473.

1. H. foliis oppositis ovatis serratis triplinervibus. Pers. syn. 2. p. 473.

Buphthalmum helianthoides. Willd. sp. pl. 3. p. 2236.

Helianthus lævis. Sp. pl. 1278.

Rudbeckia oppositifolia. Sp. pl. 1280. Silphium solidaginoides. Sp. pl. 1302.

On the banks of rivers, and in rocky shady places: Pensylvania to Carolina. 4. Aug.—Oct. v. v. A tall plant, resembling a species of *Helianthus*.

# 649. BUPHTHALMUM. Gen. pl. 1231.

1. B. foliis oppositis cuneato-lanceolatis carnosis incanis, petiolis bidentatis, caule fruticoso.—Willd. sp. pl. 3. p. 2229.

Icon. Dill. elth. t. 28. f. 4. Pluk alm. t. 115. f. 4. Catesb. fl. car. 1. t. 93.

tomentosa.

lævis.

On the sea-coast: Virginia to Florida. b. Aug. Sept. v. v. A shrub about five feet high.

angustifolium.

- 2. B. foliis alternis linearibus superne latioribus integerrimis glabris, calycinis foliolis acute-lanceolatis.—Herb. Banks. mss.
  - In Georgia and Florida. Bartram. U. v. s. in Herb. Banks.

sagittatum.

3. B. tomentosum; foliis radicalibus longissime petiolatis oblongis sagittatis integerrimis subtrinervibus, caulinis oblongis in petiolum attenuatis, caule subtrifloro, calycinis foliolis exterioribus disco longioribus.

On dry barren hills, in the Rocky-mountains. M. Lewis. 4. June, July. v. s. in Herb. Lewis. Flowers large, yellow. The natives eat the young stems as they spring up, raw.

#### 650. AMELLUS. Gen. pl. 1315.

villosus.

- 1. A. villosissimus; foliis sessilibus oblongis acuminatis integerrimis, floribus axillaribus brevi-petiolatis, radiis integris, paleis setaceis.
  - On the Missouri. 4. v. s. Rays yellow.

spinulosus.

2. A. canescens; foliis bipinnatifidis inciso-dentatis, laciniis linearibus rigido-mucronatis, floribus lateralibus et terminalibus congestis, radiis bidentatis, paleis setaceis.

In open prairies on the Missouri. M. Lewis. Sept. v. s. in Herb. Lewis. Rays yellow.

Tota planta rigida, scabra, cano-viridescens. Caulis ramosissimus. Rami angulosi. Ramuli laterales breves, uniflori. Folia alterna, bipinnatifida, rigida, laciniis linearibus, spinula terminatis, inferioribus inciso-den-Flores laterales solitarii et terminales congesti, subcorymbosi, lutei. Calyx imbricatus: squamis exterioribus brevioribus, acutis, hirsutis; interioribus linearibus, scariosis. Corollulæ radii lineari-lanceolatæ, bidentatæ. Receptaculum: Paleis brevibus, subulatis.

Both species are an intermediate link between Aster and Inula. They approach the nearest to Amellus; but the receptacle is not, properly speaking, paleaceous, but

only setaceous.

# 651. VERBESINA. Gen. pl. 1317.

virginica.

1. V. caule angusto alato, foliis alternis lato-lanceolatis subserratis, corymbo composito, calycibus oblongis pubescentibus.-Willd. sp. pl. 3. p. 2222.

In shady woods on the mountains: Pensylvania to Carolina. 2. July—Sept. v. v. Rays from three to four, white.

2. V. caule alato, foliis oppositis ovato-lanceolatis utrinque Siegesleckia. acuminatis acute serratis, panicula brachiata, ramulis summitate fasciculifloris. - Willd, sp. pl. 3. p. 2224.

Siegesbeckia occidentalis. Sp. pl. 1269.

In shady woods: Virginia to Carolina. 4. July-Sept. v. v. Rays from one to three, yellow. It has a strong resemblance to Phæthusa.

3. V. caule alato, foliis alternis lanceolatis serratis, panicula corymbosa laxa foliosa, calycibus laxis patulis, disco subgloboso. - Mich. fl. amer. 2. p. 134.

Coreopsis.

Coreopsis alternifolia. Willd. sp. pl. 3. p. 2257.

a. V. radiata aut flosculosa luteiflora. Mich. l. c. Icon. Jacq. hort. vind. t. 110. Pluk. alm. t. 159. f. 3.

lutea.

alba.

β. V. semper flosculosa albiflora. Mich. l. c.

Athanasia paniculata. Walt. fl. car. 201. In the mountains of Virginia and Carolina. β. On the Carolina coast. 2. July—Sept. v. v. From three to seven feet high; flowers yellow. The white variety I have only seen in the Walterian Herbarium, and I strongly suspect it to be a very distinct species.

4. V. caule alato, foliis alternis lato-lanceolatis acutis levi- helianthoides. ter dentatis subtus albido-villosis, supra aspero-pubescentibus, pedunculis unifloris aggregatis. - Mich. fl. amer. 2. p. 135.

In the western parts of the Allegany mountains: Tennassee and Illinois. 4. Aug. Sept. v. s. Flowers

like Helianthus.

### 652. ZINNIA. Gen. pl. 1304.

1. Z. floribus pedunculatis, foliis oppositis ovato-lanceolatis multiflora. subpetiolatis. Willd. sp. pl. 3. p. 2139.

Jcon. Linn. dec. t. 12. Jacq. obs. 2. t. 40. Bot. mag.

On the banks of the Mississippi. O. July, Aug. v. v. Rays yellow, orange, and sometimes brick-red.

# III. FRUSTRANEA.

#### 653. BIDENS. Gen. pl. 1267.

vernua.

 B. floribus subradiatis cernuis, calyce exteriore flore longiore, foliis lanceolatis subconnatis dentatis. Willd. sp. pl. 3. p. 1716.

Icon. Fl. dan. 841. Curtis fl. lond. 3. t. 55. Pet. hort.

brit. t. 20. f. 6.

minima.

β. B. foliis lanceolatis sessilibus, floribus seminibusque erectis. Sp. pl. 1165.

Icon Fl. dan. 312. Dill. in Raii syn. t. 7. f. 2.

Coreopsis.

y. B. foliis lanceolatis serratis oppositis amplexicaulibus. Sp. pl. 1281.

Icon. Barrel. ic. t. 1209. Læss. fl. pruss. t. 11.

About ponds, ditches and springs: Canada to Pensylvania. ①. Aug. Sept. The flowers of this and all the following species are yellow, and the most of them are either without or with rays.

chrysanthemoides. 2. B. floribus radiatis cernuis, radio calyci subæquali triplo longiore, foliis oblongis utrinque attenuatis dentatis basi connatis. Willd. sp. pl. 3. p. 1717. Mich. fl. amer. 2. p. 136.

Coreopsis flammula. Herb. Banks. mss.

Coreopsis perfoliata. Walt. fl. car. 215.

In overflowed places and about ponds: New England to Carolina. . Aug.—Oct. v. v. Flowers large, bright yellow. The awns of the seeds are by two, three, or four; not always by two, as Michaux asserts.

frondosa.

3. B. floribus discoideis, calyce exteriore flore sexduplo longiore, foliolis basi ciliatis, foliis inferioribus pinnatis, superioribus ternatis lanceolatis serratis. Willd. sp. pl. 3. p. 1718.

Icon. Moris. hist. 3. s. 6. t. 5. f. 21.

In shady fertile woods and fields: Pensylvania to Carolina. . July—Oct. v. v.

connata.

4. B. floribus discoideis, calyce exteriore flore triplo longiore, foliis caulinis ternatis, foliolis lateralibus connatis, floralibus oblongo-lanceolatis. Willd. sp. pl. 3. p. 1718.

In fields and woods; frequent: Canada to Carolina.  $\odot$ . July—Oct. v.v.

pilosa.

5. B. floribus discoideis, calyce exteriore longitudine interioris, foliis inferioribus pinnatis, superioribus ternatis, foliolis oblongis, terminali lanceolato reliquis duplo longiore. Willd. sp. pl. 3. p. 1720.

Icon. Dill. elth. t. 43. f. 51.

In old fields and cultivated grounds: Pensylvania to Carolina. O. July—Oct. v. v. A common weed.

B. floribus subradiatis, calyce exteriore longitudine interioris, foliis bipinnatis, foliolis lanceolatis pinnatifidis. Willd. sp. pl. 3. p. 1721.

Icon. Herm. parad. t. 123. Moris. hist. 3. s. 6. t. 7.

f. 23.

A common weed in all old fields. O. July—Oct. v. v.

### 654. COREOPSIS. Gen. pl. 1325.

#### \* Foliis oppositis, indivisis.

C. foliis sessilibus lanceolato-linearibus integerrimis ciliatis, pedunculis elongatis nudis, seminibus orbiculatis scabris alatis apice bidentatis emarginatis.—Willd. sp. pl. 3. p. 2256.

Icon. Dill. elth. t. 48. f. 56. Mart. cent. 26.

β. C. caule foliisque canescenti-villosis. Mich. fl. amer. 2. p. 137.

C. crassifolia. Willd. sp. pl. 3. p. 2256.

In mountainous situations: Virginia and Carolina. 4. Aug.—Oct. v.v. Flowers deep yellow; rays broad with four or five teeth.

C. glabra; foliis petiolatis lanceolato-ovatis sensim acuminatis argute serratis, pedunculis axillaribus terminalibusque dichotome-corymbosis.

In Carolina. P. Miller. 4. v. s. in Herb. Banks. Flowers middle size. This and all the rest are of a bright yellow colour.

3. C. foliis ovatis acuminatis serratis petiolatis triplinervibus decurrentibus.

In Virginia. Bartram. J. v. s. in Herb. Banks.

C. foliis ovatis acuminatis crenato-dentatis, dentibus mucronatis, petiolis brevibus, radiis integris, seminibus cuneato-oblongis apteris apice nudis.—Willd. sp. pl. 3. p. 2257. Mich. fl. amer. 2. p. 137.
 On the high mountains of Virginia and Carolina. 21.

On the high mountains of Virginia and Carolina. 2. July—Sept. v.v. A tall growing species; flowers

rather small.

bipinnata.

lanceolata.

villosa.

arguta.

alata.

latifolia.

# \*\* Foliis oppositis, divisis.

- aristata.
- 5. C. pubescens; foliis quinato-pinnatis serratis, radiis integris lato-ovalibus, seminibus cuneato-obovatis biaristatis, aristis divaricatis.— Willd. sp. pl. 3. p. 2253.

C. aristosa. Mich. fl. amer. 2. p. 140.

- In South Carolina and Illinois. 4. Aug. Sept. v. s. Flowers large; rays very broad.
- trichosperma. 6. C. glabella, dichotoma; foliis subquinato-pinnatis lanceolatis serratis, calycis exterioris foliolis (8) spathulatis ciliato-serratis, radiis integris, seminibus cuneatis sub-4-dentatis. - Willd. sp. pl. 3. p. 2252. Mich. fl. amer. 2. p. 139.

In cedar-swamps: New Jersey and Carolina. -Oct. v. v. Flowers small; resembles C. coronata.

- Auriculata.
- 7. C. pubescens; foliis subsessilibus ovali-lanceolatis integerrimis, inferioribus ternatis, calyce exteriore profunde partito, radiis 4-dentatis, seminibus subrotundoobovatis apice emarginato-bidentatis. - Willd. sp. pl. 3. p. 2256.

Icon. Pluk. alm. t. 83. f. 5. & t. 242. f. 4.

On the high mountains of Virginia and Carolina. Aug.-Oct. v. v.

tripteris.

8. C. glabra; foliis petiolatis lanceolatis integerrimis, radicalibus pinnatis, caulinis ternatis, radiis integris, seminibus obovatis apice nudis .- Willd. sp. pl. 3. p. 2253.

Icon. Moris. hist. 3, s. 6. t. 3. f. 44.

On high mountains: Virginia to Carolina. 4. Aug.-Oct. v. v.

senifolia.

g. C. subpubescens; foliis sessilibus integerrimis ternatis, radiis integris, seminibus cuneato-oblongis.-Willd. sp. pl. 3. p. 2254.

C. major. Walt. fl car. 214.

- C. stellata. Herb. Banks. mss.
- On dry stony hills, in the mountains of Virginia and Carolina. 4. Aug.— Oct. v. v.

aurea.

10. C. foliis serratis, radicalibus 3-partitis, caulinis trifidis integrisve lanceolato-linearibus. Willd. sp. pl. 3. p. 2253.

In North America. 24. +.

- trifida.
- 11. C. glabra; foliis trifidis subulatis fasciculatis, pedunculis terminalibus unifloris, radiis 3-fidis, caule subflexuoso. - Lam. encycl. suppl. 2. p. 353.

Icon. Lam. illustr. t. 704. f. 2.

In North America. Lamarck. 4. +. Resembles C. verticillata.

12. C. foliis verticillatis ternis quinisve pinnatis, pinnis linearibus tripartitis indivisisque, disco concolore. Willd. sp. pl. 3. p. 2252.

tenuifolia.

C. verticillata. Lam. encycl. 2. p. 108.

Icon. Pluk. mant. t. 344. f. 4.

On high dry mountain lands: Virginia and Carolina. 4. Aug.—Oct. v. v.

Aug.—Oct. v.v.

13. C. foliis verticillatis ternis quinisve pinnatis, pinnis linearibus tripartitus indivisisque, disco discolore. Willd.

sp. pl. 3. p. 2151.

C. delphinifolia. Lam. encycl. 2. p. 108. Icon. Bot. mag. 156. Ehret pict. t. 9. f. 1.

On high mountains: Virginia and Carolina. 4. Aug. —Oct. v.v.

14. C. glabra; foliis petiolatis, inferioribus bipinnatifidis, superioribus lineari-3-partitis, calycibus simplicius-culis, seminibus nudis.—Willd. sp. pl. 3. p. 2253.

In low grounds of Carolina. *Michaux*. On the Missouri. *M. Lewis*. S. July, Aug. v. v.

#### \*\*\* Foliis alternis.

15. C. foliis ovato-lanceolatis acutis denticulatis subhirtis, floribus corymboso-paniculatis.

acuta.

mitis.

In Georgia. Bartram. J. v. s. in Herb. Banks.

dichotoma.

16. C. caule glabro superne nudiusculo dichotomo, foliis plerumque alternis indivisis integerrimis in petiolum angustatis, seminibus obovatis bisetosis scabris, ala marginali fimbriato-lacera.—Mich. fl. amer. 2. p. 137.

C. gladiata. Walt. fl. car. 215.

In shady sphagnous swamps of New Jersey and Carolina. . . July—Oct. v. v.

17. C. foliis ellipticis acuminatis serratis petiolatis venosis decurrentibus, inferioribus verticillatis, superioribus alternis. Willd. sp. pl. 3. p. 2258.

procera.

In North America. Aiton. 4. +.

18. Cr foliis lineari-lanceolatis integerrimis lævibus, radiis angustifolia. oblongis trifidis, lacinia media majore.—Willd. sp. pl. 3. p. 2257.

In Carolina and Florida. Bartram. 4. v. s. in Herb.
Banks.

aspera.

C. foliis lanceolato-linearibus asperis, superioribus alternis, inferioribus oppositis, caule unifloro.
 In Maryland. v. s. in Herb. Banks.

# 655. HELIANTHUS. Gen. pl. 1322.

### \* Foliis oppositis.

atrorulens.

1. H. totus hispidus; caule superne nudiusculo laxe paniculato, foliis spathulatis ovatis crenatis triplinervibus scabris, squamis calycinis ovato-lanceolatis longitudine disci atropurpureo.— Willd. sp. pl. 3. p. 2245.

Icon. Dill. elth. t. 94. f. 110. Mart. cent. t. 20.

In gravelly and slate soil, in the western parts: Pensylvania to Carolina. 4. 3. Aug. Sept. v. v. Rays yellow; disk dark purple.

pubescens.

2. H. cano-pubescens; caule villoso, foliis sessilibus cordato-ovatis amplexicaulibus triplinervibus adpressosubserratis, calycinis squamis lanceolatis villosis.—
Willd. sp. pl. 3. p. 2244.

H. mollis. Lam. encycl. 3. p. 81.

H. canescens. Mich fl. amer. 2. p. 140.

In wet meadows of Kentucky and Tennassee. J. Aug.
—Oct. v. s. Both ray and disk are yellow, which is the case with all the following species.

divaricatus.

3. H. caule glabro ramosissimo, foliis suboppositis sessilibus lauceolato-ovatis trinervibus, panicula trichotoma gracili parviflora.—Willd. sp. pl. 3. p. 2244.

Icon. Moris. hist. 3. s. 6. t. 7. f. 66. mala.

On the borders of woods and in hedges: Canada to Pensylvania. 4. Aug.—Nov. v. v. About five or six feet high; flowers smaller than any other species here enumerated.

frondosus.

4. H. caule inferne glabro, foliis ovatis argute serratis, pedunculis scabris, calycibus squarrosis undulatis frondosis ciliatis, radiis 8-floris.—Willd. sp. pl. 3. p. 2241.

In Canada. 24. + About four feet high; resembles *H. decapetalus* and *multiflorus* in several respects, but is distinct.

trachelifolius.

H. foliis ovato-lanceolatis acuminatis serratis triplinervibus utrinque scaberrimis, calycinis squamis linearilanceolatis ciliatis, exterioribus longioribus. Willd. sp. pl. 3. p. 2241.

H. Gigas. Mich. fl. amer. 2. p. 141.

In woods and dry swamps: Canada to Carolina. 4. Aug.—Oct. v. v. Resembles H. decapetalus. About three feet high.

 H. glaberrimus; caule paniculato, ramis summitate paucifloris, foliis subsessilibus longissime-lanceolatis triplinervibus integerrimis, inferioribus serratis, calycinis squamis ovatis acutis, exterioribus linearibus divaricatis. longifolius.

In the western parts of Georgia. Lyon. 4. Aug.—Oct. v. v. From four to seven feet high; stem dark purple and very smooth; flowers middle size.

#### \*\* Foliis superioribus alternis.

7. H. foliis alternis lanceolatis serratis scabris obsolete triplinervibus utrinque attenuatis subsessilibus basi ciliatis, calycinis squamis lanceolatis ciliatis. Willd. sp. pl. 3. p. 2242.

giganteus.

In dry swamps and on mountain meadows: Canada to Carolina. 4. Aug.—Oct. v. v. A tall, rough-looking plant; horses are fond of its young shoots. Stems rough and green.

8. H. foliis alternis ovato-lanceolatis serratis scabris triplinervibus, apice attenuatis petiolatis, petiolis ciliatis, calycinis squamis lanceolatis ciliatis. Willd. sp. pl. 3. p. 2243.

altissimus.

Icon. Jacq. hort. vind. t. 160.

In copses and mountain meadows: Pensylvania to Carolina. 4. July—Sept. v. v. Resembles the preceding; stems smooth and purple; the chaff of the receptacle is green in this species, but black in the preceding.

9. H. foliis ovatis acuminatis serratis triplinervibus subtus scabris, calycinis squamis lineari-lanceolatis basi ciliatis. Willd. sp. pl. 3. p. 2242.

Icon. Bocc. sic. t. 27. f. 4.

In Canada and New England. 21. Aug.—Oct. v. v.

10. H. caule debili prostrato, foliis lanceolatis acuminatis scabris serratis triplinervibus, superioribus integerrimis, calycinis squamis lanceolatis ciliatis. — Willd. sp. pl. 3. p. 2242. prostratus.

In North America. Willdenow. 4. +.

11. H. foliis ovatis acuminatis remote serratis triplinervibus d scabris, calycinis squamis lanceolatis subæqualibus

decapetalus.

mollis.

subciliatis, radiis denis duodenisve. - Willd. sp. pl. 3. p. 2241.

Icon. Rob. ic. 235.

In dry stony soil, in woods, and on road sides: Canada to Virginia. 21. Aug.—Oct. v. v. About three or four feet high. Resembles the following.

multiflorus. 12. H. foliis triplinervibus scabris, inferioribus cordatis, superioribus ovatis, radio multifloro, calycinis squamis lanceolatis. Willd. sp. pl. 3. p. 2239.

> Icon. Bot. mag. 227. Pluk. phytogr. t. 159. f. 2. In dry mountain woods: Pensylvania to Carolina.

July-Sept. v. v.

13. H. foliis ovatis acuminatis triplinervibus adpresso-serratis supra scabris, subtus cano-pubescentibus mollissimis, calycinis squamis lanceolatis adpressis. Willd. enum. 920. Willd. sp. pl. 3. p. 2240.

H. tomentosus. Mich. fl. amer. 2. p. 141.

In exsiccated swamps: Pensylvania and Virginia. July-Oct. v. v. Leaves very rough on the upper surface, and soft underneath.

macrophyllus. 14. H. foliis ovatis acuminatis triplinervibus serratis supra scabris, subtus cano-pubescentibus, calycinis squamis linearibus squarrosis. Willd. hort. berol. 70. cum icone.

> In Pensylvania and Virginia, on the borders of woods. 24. Aug.—Oct. v. v.

angustifolius. 15. H. caulibus gracilibus subunifloris, foliis linearibus margine revolutis asperis.—Willd. sp. pl. 3. p. 2244. Rudbeckia angustifolia. Willd. sp. pl. 3. p. 2250.

Icon. Mill. ic. t. 224. f. 2.

In cedar-swamps: New Jersey to Florida. 4. Sept.-Nov. v. v. Rays deep yellow, disk brown.

### 656. GALARDIA. Gen. pl. 1323.

bicolor.

1. G. caule ramoso, foliis amplexicaulibus lanceolatis inciso-dentatis obtusis, paleis pappi integerrimis aristatis. -Willd. sp. pl. 3. p. 2245.

G. lanceolata. Mich. fl. amer. 2. p. 142. Gaillarda pulchella. Fougeroux act. par. 1785. Colonnea pulcherrima. Buchoz. ic. t. 126.

Virgilia helioides. L'Herit. monog. Smith exot. bot, p. 71. 1. 37.

Leysera caroliniana. Walt. fl. car. 211. secundum Herb.

Icon. Lam. illustr. t. 708.

In dry sandy soil: Carolina to Florida. O. July, Aug. v. v. About two feet high; flowers large and very showy; rays orange with red towards the base, disk dark purple with orange.

2. G. caule simplicissimo unifloro, foliis radicalibus obovatis, caulinis linearibus, paleis pappi laceris. Willd.

sp. pl. 3. p. 2246.

In open swamps of Carolina and Florida. Michaux.

3. G. hirsutissima, scabra; caule ramoso, foliis linearilanceolatis sessilibus, paleis pappi (5-7) ovato-lanceolatis longissime aristatis.

On dry hills on the Rocky-mountains. M. Lewis. v. s. in Herb. Lewis. Flowers orange-coloured.

Planta hirsutissima. Caulis erectus, teres, ramosus. Rami uniflori. Folia caulina alterna, longe-linearilanceolata, sessilia, scabra, hirsutissima. Calyx subimbricatus, polyphyllus: foliolis lineari-oblongis, acutissimis, disco duplo longioribus, margine coloratis. Corollulæ: Radii circiter 12. obcuneatæ, 3-fidæ: laciniis oblongis, subæqualibus, obtusiusculis; Disci tubulosæ, 5-fidæ: laciniis extus purpurascentibus hirsutissimis. Receptaculum in ambitu subpaleaceum, centro setosum. Pappus: paleis 5-7. scariosis, ovatis, longissime-setaceo-aristatis.

# 657. RUDBECKIA. Gen. pl. 1324.

1. R. aspera; foliis inferioribus lato-ovatis basi attenuatis remote dentatis, caulinis lanceolato-ovatis utrinque acuminatis subintegerrimis, radiis longissimis dependentibus bifidis. - Willd. sp. pl. 3. p 2249.

Icon. Bot. mag. 2. Catesb. car. 2. t. 59. Pluk. alm.

t. 21. f. 1.

In the mountains: Virginia to Florida. 4. Aug.-Oct. v. v. A highly ornamental perennial; flowers large, rays purple, disk brown.

2. R. glabra; foliis oblongo-lanceolatis cordatis amplexi- amplexifolia, caulibus, inferioribus serratis, disco cylindraceo-conico.—Willd. sp. pl. 3. p. 2249.

R. amplexicaulis. Vahl in act. soc. nat. scrut. haf. 2. p. 29. t. 4.

fimbriata.

aristata.

purpurea,

R. perfoliata. Cav. ic. 3. p. 27. t. 252.

Icon. Jacq. ic. rar. 3. t. 592.

In Lower Louisiana, on the banks of the Mississippi. O. July, Aug. v. v. Flowers deep yellow.

lævigata.

3. R. undique glaberrima; caule lævigato paniculato, ramis corymbosis, pedunculis elongatis unifloris, foliis ovato-lanceolatis utrinque acuminatis triplinervibus integerrimis aut dente uno alterove instructis lævigatis, calycinis foliolis lanceolatis longitudine radii.

In Georgia. Lyon. 4. v. s. in Herb. Lambert. Rays

pale yellow, short.

discolor.

4. R. ramis corymbosis unifloris, pedunculis nudis elongatis, foliis lanceolatis strigoso-pilosis subintegerrimis, calycinis foliolis ovatis acutis, petalis lanceolatis integerrimis discoloribus longitudine calycis.

In Florida. Bartram. 4. v. s. in Herb. Banks. Flowers small, rays yellow, and deep orange or purple un-

spathulata.

4. R. gracilis, pubescens; caulibus unifloris, foliis obovatospathulatis integerrimis, calyce patulo imbricato, radiis tridentatis.— Willd. sp. pl. 3. p. 2249. R. gracilis. Herb. Banks. mss.

In the mountains of Carolina. Michaux. In Florida. Bartram. 3. July, Aug. v. s. in Herb. Banks.

aristata.

5. R. caule hispido, ramis elongatis corymbosis unifloris, foliis lanceolato-oblongis serratis hispidis, disco subhemisphærico, paleis pappi subulatis aristatis.—Herb. Banks, mss.

In South Carolina. v. s. in Herb. Ranks. Flowers

small, deep yellow.

fulgida.

6. R. caule hispido, ramis virgatim elongatis unifloris, foliis oblongo-lanceolatis denticulatis hispidis basi angustatis subcordatis, calyce foliaceo radium subæquante, disco hemisphærico, paleis lanceolatis.—Willd. sp. pl. 3. p. 2248.

In mountain meadows and woods: Pensylvania to Caro-2. July-Oct. v. v. Rays dark orange-co-

loured, disk deep purple.

hirta.

7. R. hirsutissima; caulibus virgatis subramosis unifloris, pedunculo nudo, foliis ovato-spathulatis triplinervibus serratis hirtis, calyce foliaceo radium subæquante, disco conico, paleis lanceolatis. -- Willd. sp. pl. 3. p. 22-18.

Icon. Dill. elth. t. 218. f. 285. Pluk. alm. t. 242. f. 2.

- In the mountains: Virginia to Florida. S. July—Sept. v. v. Resembles the preceding; rays yellow, disk dark brown.
- 8. R. caule inferne hispido, superne glabro nudiusculo, pedunculis longissimis unifloris, foliis ovatis attenuatis tuberculatis hispidis, calycibus imbricatis, squamis ovatis acuminatis ciliatis.

Radula.

In Georgia. Bartram. 3. v. s. in Herb. Banks.

9. R. hispido-pilosa; caule paniculato, ramis divaricatis multifloris foliosis, foliis lanceolatis utrinque acuminatis serratis, inferioribus trilobis, calycinis foliolis linearibus deflexis longitudine radii.— Willd. sp. pl. 3. p. 2247. triloba.

Icon. Pluk. alm. 22. f. 2.

- In the Virginia and Carolina mountains. 4. J. Aug-Sept. v. v. About four or five feet high; flowers small, pale yellow.
- 10. R. brevi pubescentia subtomentosa; caule ramoso, ra-subtomentosa. mis erectis multifloris, foliis oblongo-lanceolatis acutis subserratis, inferioribus trilobis, calycinis foliolis incumbentibus radio brevioribus.

R. triloba B. Mich. fl. amer. 2. p. 144.

In mountain meadows: Virginia and Illinois. 4. Aug. Sept. v. v. Not near so high as the preceding, from which it is very distinct, though Michaux considers it only a variety.

columnaris.

11. R. caule stricto simplici summitate paucifioro, pedunculis elongatis, foliis pinnatifidis incisis, laciniis linearibus, calyce simplici 5-phyllo, radiis 5—8., disco cylindraceo elongato.

R. columnifera. Fraser catal. 1813.

On the Missouri. v. s. The singular appearance of the receptacle of this plant distinguishes it from all the other known species.

 R. foliis inferioribus pinnatis, pinnis 3-lobis, summis ovatis, pappo crenato, caule glabro. Schrad. new. journ. 2. p. 61. Willd. enum. 921. laciniata.

- Icon. Moris. hist. 3. s. 6. t. 6 f. 53. Corn. canad. t. 179. On the edges of swamps and ditches: Canada to Virginia. 4. Aug.—Oct. v. v. From five to ten feet high.
- R. foliis inferioribus pinnatis, pinnis pinnatifidis, superioribus simplicibus pinnatis, summis 3-fidis, pappo

digitata.

crenato, caule lævi. Schrad. new. journ. 2. p. 61. Willd. enum. 921.

Icon. Moris. hist. 3. s. 6. t. 6. f. 54. In the mountains of Virginia and Carolina. 4. Aug. --Oct. v. v. Resembles the preceding.

pinnata.

14. R. foliis omnibus pinnatis, pinna una alterave inferiorum bipartita, reliquis indivisis, pappo integerrimo, caule suicato hispido. Schrad. new. journ. 2. p. 61. Willd. enum. 921. Mich. fl. amer. 2. p. 144.

R. digitata. Willd. sp. pl. 3. p. 2247. excl. syn. Morison, et Aiton.

R. odorata. Hortul.

Icon. Smith exot. bot. 38. Vent. jard cels 71.

In the western parts of Carolina and Georgia. -Oct. v.v. Flowers very showy, of an anise scent; rays long, bright yellow, hanging downwards; disk ovate, purple.

### 658. CENTAUREA. Gen. pl. 1331.

Cyanus.

1. C. squamis calycinis serratis, foliis linearibus integerrimis, inferioribus dentatis. Smith fl. brit. 2. p. 911. Willd. sp. pl. 3. p. 2291.

Icon. Engl. bot. 277. Fl. dan. 993.

In rye and wheat fields; rare. Brought from Europe with the grain. O. July, Aug. v. v. Flowers blue.

solstitialis.

2. C. calycibus palmato-spinosis solitariis, spinis rectis, foliis canescentibus lineari-lanceolatis decurrentibus integerrimis, radicalibus lyratis. Willd. sp. pl. 3. p. 2309.

Icon. Engl. bot. 243.

In sandy fields and woods: New Jersey: introduced from Europe. O. July, Aug. v. v. Flowers yellow.

# IV. NECESSARIA.

# 659. CHAPTALIA. Vent. hort. cels 61.

1. C. foliis ovato-oblongis integerrimis subtus argenteo tomentosis, scapo nudo unifloro, flore nutante.—Vent. l. c. cum icone.

tomentosa.

Tussilago integrifolia. Mich. fl. amer. 2. p. 121. Perdicium semiflosculare, Walt. fl. car, 204.

In sandy fields and woods, in moist soil: Carolina to Florida. 1. May, June. v. v. Flowers white, with a tinge of pale purple.

#### 660. SILPHIUM. Gen. pl. 1334.

1. S. caule superne hispido, foliis radicalibus caulinisque pinnatifidis, laciniis dentato-sinuatis, calycinis foliolis subcordatis acuminatis.—Willd. sp. pl. 3. p. 2330.

laciniatum.

Icon. Linn. fil. fasc. 1. t. 3.

On the banks of rivers in the western territories, particularly on the Mississippi. 4. Aug.—Oct. v. v. From eight to twelve feet high; flowers large, and, as all the rest of the genus, yellow.

2. S. caule lævi, foliis caulinis sinuato-pinnatifidis, radica-compositum. libus ternatis sinuato- multifidis, floribus parvis paniculatis.—Willd. sp. pl. 3. p. 2331.

S. laciniatum. Walt. fl. car. 217.

S. sinuatum. Herb. Banks. mss.

In gravel!y woods, near the sea-coast: Virginia and Carolina. 4. Aug.—Oct. v. v. Not above two feet high; flowers small.

3. S. caule lævi, foliis radicalibus amplis cordatis, caulinis terebinthinaalternis ovatis serratis scabris.—Willd. sp. pl. 3. ceum. p. 2331.

Icon. Jacq. hort. 1. t. 43.

In the western mountains and Louisiana. 4. Aug.—Oct. v. v. About five feet high; radical leaves very large.

4. S. caule tetragono lævi, foliis oppositis connatis ovatis perfoliatum. serratis.—Willd. sp. pl. 3. p. 2331.

β. S. squamis calycinis quatuor exterioribus calyce interiore conjunctum. longiore. Willd. enum. 933.

In the Allegany mountains: Pensylvania to Carolina.

 $\mathcal{Y}$ . July—Oct. v. v. A tall robust plant. Var.  $\beta$ . though considered by Willdenow as a distinct species, appears to be little more than a variety.

connatum.

- 5. S. caule tereti hispido, foliis oppositis connatis remote serratis scabris.—Willd. sp. pl. 3. p. 2332.
  - In high mountains of Virginia and Carolina. 4. Aug. Sept. v. v. Resembles the preceding, but is a very distinct species.

Asteriscus.

 S. caule tereti hispido, foliis oppositis alternisve oblongis acutis serratis scabris, calycibus chiatis.— Willd. sp. pl. 3. p. 2332.

Icon. Dill. elth. t. 37. f. 42.

- In mountain meadows: Virginia and Carolina. 4. July—Sept. v. v.
- pumilum.
- 7. S. caule tenuiter tomentoso, foliis ovalibus leviter serratis obtusis subtomentosis, calycinis foliolis obovatis obtusis, seminibus muticis.—Willd. sp. pl. 3. p. 2332.
  - S. patulum. Herb. Banks.
    In Florida. Michaux. Bartram. 4. v.s. in Herb. Banks.
- integrifolium.
- 8. S. caule tetrageno aspero, foliis oppositis sessilibus oblongis integerrimis scabris, floribus paucis breviter pedunculatis Willd. sp. pl. 3. p. 2333.
  - On the most western of the Allegany mountains and Illinois. 4. Aug.—Oct. v. v. About four feet high.
- lævigatum.
- 9. S. caule simplici tetragono sulcato glabro, foliis oppositis sessilibus ovatis acuminatis tenuissime serratis basi subcordatis utrinque glabris, calycinis squamis ovatis ciliatis.
  - In Georgia. Enslen. U. v. s. in Herb. Enslen. About two feet high; flowers in a close corymb.
- trifoliatum.
- S. caule sexangulo lævi, foliis terno-verticillatis ovatolanceolatis inæqualiter dentato-serratis scabris, superioribus sessilibus, panicula trichotoma.—Willd. sp. pl. 3. p. 2333.

S. ternifolium. Mich. fl. amer. 2. p. 146. Icon. Moris. hist. 3. s. 6 t. 3. f. 68.

On the high mountains of Virginia and Carolina.

Ψ.

- Sept. Oct. v. v. About six feet high.
- ternatum.
- 11. S. caule tereti lævi, foliis terno-verticillatis petiolatis lanceolatis subdenticulatis scabriusculis basi ciliatis, superioribus sparsis sessilibus, panicula dichotoma, calycibus ciliatis,—Willd. sp. pl. 3. p. 2333.

In North America. Retz. 4. v. s. in Herb. Lambert.

12. S. caule tereti lævi, foliis subquaterno verticillatis lanceolatis scabris subintegerrimis subsessilibus basi ciliatis, superioribus sparsis, panicula dichotoma. - Willd. sp. pl. 3. p. 2334.

atropurbureum.

In Carolina and Georgia. Lyon. 4. Aug. Sept. v.v. Resembles the preceding; but its purple smooth stem distinguishes it at first sight.

13. S. caule petiolisque tomentosis, ramis unifloris, foliis tomentosum. alternis cordatis ovatis serratis petiolatis villosis, seminibus muticis .- Herb. Banks. mss.

In Georgia, Bartram. U. v. s. in Herb. Banks.

14. S. foliis alternis petiolatis cordatis sinuatis, squamis calycinis obtusis. Herb. Banks. mss.
In Carolina. 4. v. s. in Herb. Banks.

elatum.

15. S. foliis alternis ovato-lanceolatis cordatis serratis obtusi- reticulatum. usculis villosiusculis. Herb. Banks. mss. In Florida. U. v. s. in Herb. Banks.

### 661. POLYMNIA. Gen. pl. 1335.

1. P. viscido-villosa; foliis denticulatis acuminatis, inferioribus pinnatifidis, superioribus trilobis integrisve.-Willd. sp. pl. 3. p. 2335.

canadensis.

Icon. Amæn. acad. 3. t. 1. f. 5.

In shady mountains: Canada to Virginia. 4. June, July. v. v. Two or three feet high; flowers yellow; the whole plant has a strong balsamic scent.

2. P. foliis oppositis trilobis acutis in petiolum decurrentibus, lobis anguloso-sinuatis, radiis elongatis. - Willd. sp. pl. 3. p. 2335.

Uvedalia.

P. maculata. Cav. ic. 3. t. 227.

Icon. Pluk. alm. t. 83. f. 3. Mcris. hist. 3. s. 6. t. 7. f. 55. Trew pict. suppl. 112.

In the mountains of Virginia and Carolina. 2. July— Sept. v. v. From four to eight feet high.

### 662. CHRYSOGONUM. Gen. pl. 1337.

1. C. pumilum, lanato-villosum; foliis in petiolum angus- virginianum. tatis ovalibus dentatis. — Willd. sp. pl. 3. p. 2337.

Icon. Pluk. alm. t. 83. f. 4. & t. 242. f. 3.

On dry hills: Virginia and Carolina. 4. May, June. v. v. Not above a span high; flowers yellow.

### 663. BALTIMORA. Gen. pl. 1333.

recta.

B. scabra; caule dichotomo, foliis oppositis ovatis actuminatis serratis petiolatis.—Willd. sp. pl. 3. p. 2329.
 Icon. Pluk, mant. t. 342. f. 3.

In Maryland near Baltimore. Sp. pl. O. July. v. v. cult. Flowers small, yellow. I have never seen this plant in any part of the United States, and suppose it to be only an inhabitant of Vera Cruz.

### 664. PARTHENIUM. Gen. pl. 1428.

integrifolium.

 P. foliis oblongis inæqualiter dentatis asperis, superioribus amplexicaulibus.—Willd. sp. pl. 3. p. 2385.

Icon. Willd. hort. berol. t. 4. Dill. elth. t. 225. f. 292. Pluk. alm. t. 53. f. 5. & t. 219. f. 1. Lam. illustr. t. 766.

In dry places on the mountains of Virginia and Carolina. 4. Sept. Oct. v. v. About a foot high; flowers white.

### 665. IVA. Gen. pl. 1429.

ciliata.

 I. caule herbaceo, foliis lanceolato-ovatis subserratis, spica confertiuscula, bracteis lanceolatis acuminatis petiolisque longe ciliatis.—Willd. sp. pl. 3. p. 2386.

que longe ciliatis.—Willd. sp. pl. 3. p. 2386. In natural meadows: Kentucky and Illinois. O. July, Aug. v. s. About two feet high.

I. fruticosa, glabra; foliis lineari-lanceolatis cuneatis integerrrimis glabris, calycibus imbricatis.—Willd. sp. pl. 3. p. 2387. Walt. fl. car. 232.

I. integrifolia. Herb. Banks. mss.

On the sea-coast of Carolina and Georgia. 17. v. s. in Herb. Walter.

frutescens.

imbricata.

3. I. fruticosa; foliis lanceolatis punctato-scabris profunde serratis, glomerulis florum depresso-globosis.—Willd. sp. pl. 3. p. 2387.

Icon. Lam. encycl. 766. Pluk. alm. t. 27. f. 1. On the sea-coast: New England to Florida. b. Aug. Sept. v. v. A shrub about four feet high.

### 666. AMBROSIA. Gen. pl. 1427.

integrifolia.

1. A. foliis ovatis sessilibus acuminatis serratis utrinque hispidis basi ciliatis, racemis terminalibus plerumque ternis.—IV ilid. sp. pl. 4. p. 375.

On the banks of ponds and ditches: Pensylvania and Virginia. O. July—Sept. v. v. The flowers of this genus are very inconspicuous.

2. A. hirsutissima; foliis arcte sessilibus simplicibus oblongis supra basin latescentem utrinque unidentatis, fructu tetragono infra apicem quadrispinoso. *Mich. fl. amer.* 2. p. 182.

lidentata.

In the western parts of the Allegany mountains  $\odot$ . July—Sept. v.v.

3. A. liirsuta, aspera; foliis 3-lobis serratis, lobis ovali-lanceolatis acuminatis, fructu infra apicem 6-spinoso.—
Willd. sp. pl. 4. p. 375.

trifida.

Icon. Moris. hist. 3. s. 6. t. 1. f. 4.

On the banks of rivers and ditches: Pensylvania to Carolina.  $\odot$ . Aug. Sept. v. v. From five to eight feet high.

4. A. foliis bipinnatifidis glabriusculis, petiolis longe ciliatis, racemis terminalibus paniculatis, caule virgato.

Willd. sp. pl. 4. p. 376.

elatior.

In old fields: Canada to Carolina. O. June-Aug. v.v.

 A. foliis bipinnatifidis subtus canescentibus summis pin-artemisifolia. natifidis, racemis ternis terminalibus, ramis fastigiatis. Willd. sp. pl. 4. p. 376.

In fields and waste grounds: Pensylvania to Carolina.

 $\odot$ . Aug. Sept. v.v.

A. foliis glabris bipinnatifidis summis pinnatifidis, racemis terminalibus solitariis, ramis fastigiatis. Willd. sp. pl. 4. p. 376.

paniculata.

Icon. Pluk. alm. t. 10. f. 5.

In old fields and on road sides: Canada to Florida. O. July—Sept. v. v.

A. foliis caulinis pinnatifidis subdentatis petiolatis, rameis heterophyllas summis lanceolatis sessilibus, petiolis longe ciliatis, racemis terminalibus solitariis, caule paniculato. Willd. sp. pl. 4. p. 378.

On the banks of rivers and ditches: near Philadelphia.

O. July—Sept. v.v.

# 667. XANTHIUM. Gen. pl. 1426.

1. X. caule inermi ramoso, foliis cordatis lobatis serratis Strumarium. scabris basi trinervibus, fructibus ellipticis pubescentibus setis rigidis uncinatis.—Willd. sp. pl. 4. p. 373.

Icon. Fl. dan. 970.

On road sides, among rubbish and cultivated grounds:

New England to Pensylvania. 

Aug. Sept. 

v. v.

The fruit resembles the common Burdock.

### V. SEGREGATA.

#### 668. ELEPHANTOPUS. Gen. pl. 1347.

carolinianus.

 E. foliis radicalibus caulinisque oblongis basi angustatis utrinque pilosis, caule simplici erecto piloso.—Willd. sp. pl. 3. p. 2390.

E. scaber. Mich. fl. omer. 2. p. 148.

Icon. Dill. elth. t. 106. f. 126. Sloan. hist. 1. t. 156. f. 1.

In shady woods: Virginia to Florida. 4. Aug.—Oct. v. v. Flowers red.

tomentosus.

 E. foliis radicalibus caulinisque ovatis basi attenuatis utrinque tomentosis, caule simplici tomentoso.—Willd. sp. pl. 3. p. 2390.

On dry sunny hills: Lower Virginia and Carolina. 4. Aug.—Oct. v. v. Flowers deep red.

# XVIII. GYNANDRIA.

#### I. MONANDRIA.

- \* Calyculatæ; filamentum basi styli insertum.
- 669. THALIA. Cal. minimus, triphyllus. Cor. 5-petala: duo interiora minora. Anthera simplex, ovata, filamento proprio depresso innixa. Stylus simplex, ab anthera deflexus. Stigma perforatum ringens. Bacca 1-sperma.
- 670. CANNA. Cal. 3-phyllus. Cor. 6-partita, erecta. Nectar. bipartitum revolutum. Styl. lanceolatus, corollæ adnatus. Caps. muricata, 3-locularis, polysperma.
- \*\* Ecalyculatæ; filamentum nullum; anthera apice styli inserta, biloba.
- 671. ORCHIS. Cor. ringens: petalo superiore fornicato.

  Labellum dilatatum, basi subtus calcaratum aut saccatum.

  Anthera terminalis, adnata.
- 672. NEOTTIA. Cor. ringens: petalis lateralibus exterioribus antice circa basin labelli ventricosum connexis. Anthera stylo parallela, postice inserta.
- 673. ARETHUSA. Cor. subringens: petalis subconniventibus. Labellum ecalcaratum. Anthera opercularis, persistens. Pollen pulvereo-granulatum.
- persistens. Pollen pulvereo-granulatum.

  674. EPIPACTIS. Cor. erecto-patens. Labellum ecalcaratum, planum, pendulum, apice bifidum. Anthera opercularis, persistens.
- 675. MALAXIS. Cor. patens, resupinata. Labellum concavo-patulum, adscendens. Anthera opercularis.
- 676. CYMBIDIUM. Cor. erecta vel patens. Labellum basi concavum, ecalcaratum, lamina patula. Anthera opercularis, decidua. Pollen globosum.

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677. CALYPSO. Cor. 6-petala: 5. sursum expansa.

Labellum sacciforme, dorso basis 2-calcaratum. Stylus late alatus. Stigma operculo 2-lobo absconditum.

Pollen lamellis 4. solidis.

#### II. DIANDRIA.

678. CYPRIPEDIUM. Cor. 4-petala, patens. Labellum ventricoso-inflatum, obliquum. Stylus superne lobo petaloideo appendiculatus.

#### III. HEXANDRIA.

679. ARISTOLOCHIA. Cor. 1-petala, tubuloso-ligulata, basi ventricosa. Styl. O. Caps. infera, 6-locularis.

#### IV. DODECANDRIA.

680. ASARUM. Cor. tubuloso-campanulata, 3-4-fida.

Antheræ mediis filamentis adnatæ. Caps. infera, coronata, 6-locularis.

# I. MONANDRIA.

669. THALIA. Gen. pl. 10.

dealbata.

1. T. panicula albido-pulverulenta, spathis bifloris, foliis ovatis apice revolutis.— Roscoe in linn. trans. 8. p. 340.

Icon. In a single plate of J. Fraser.

In impenetrable swamps of South Carolina. 4. Aug. Sept. v. v. s. fl.; v. s. c. fl. in Herb. Lambert. A tall and handsome plant; flowers small, purple. J. Millington, Esq. of South Carolina, is, to my knowledge, the first discoverer of this elegant plant. It was introduced into the English gardens by the Messrs. Frasers.

flaccida.

#### 670. CANNA. Gen. pl. 1.

1. C. foliis petiolatis lanceolatis costatis, corollæ limbo interiore trifido: laciniis strictis emarginatis.—Willd. sp.
pl. 1. p. 3?

C. glauca. Walt. fl. car. 59.

- In deep and almost impregnable swamps of Georgia. Enslen. 4. July, Aug. v. s. in Herb. Enslen. Flowers scarlet. It approaches near to C. indica, and probably may be a new species, if not the true C. angustifolia.
- 2. C. foliis sessilibus lanceolatis glaucis, corollæ limbo interiore trifido: laciniis flaccidis.—Roscoe in linn. trans. 8. p. 339.

C. glauca B. flaccida. Willd. sp. pl. 1. p. 4.

C. angustifolia. Walt. fl. car. 59.

Icon. Salisb. stirp. rar, 3. t. 2. Thomps. bot. t. 1. Redouté liliac. 107.

In swamps of South Carolina. 4. Aug. Sept. v. v. Flowers large, yellow.

#### 671. ORCHIS. Swartz act. holm. 1800, p. 205.

#### \* Radicibus testiculatis.

1. O. labello oblongo-lanceolato pinnatim ciliato petalis duplo longiore, cornu germine longiore. Willd. sp. pl. 4. p. 8.

Icon. Bot. rep. 42.

In old meadows and exsiccated swamps: Canada to Carolina. 2. June, July. v. v. Flowers a bright golden-yellow, very handsome.

2. O. labello lanceolato ciliato longitudine petali supremi, blephariglotcornu germine longiore. Willd. sp. pl. 4. p. 9. tis. Orchis testiculata floribus niveis, &c. Clayt. no. 560.

In low swampy bottoms: New Jersey to Carolina. 2. June, July. v. v. Flowers clear white; resembles the preceding very much.

3. O. labello 3-partito, laciniis capillaceo-multifidis, petalis obtusis, cornu filiformi-clavato adscendente germinis longitudine. Willd. sp. pl. 4. p. 39.

In old fields, on the side of swamps: Canada to Virginia. 4. June—Aug. v.s. Flowers yellow.

4. O. labello oblongo pinnatim-ciliato, petalis rotundatis, binis lateralibus dentatis, cornu germine breviore. Willd. sp. pl. 4. p. 9. Mich. fl. amer. 2. p. 156.

psycodes.

cristata.

discolor.

- In exsiccated swamps and mountain meadows: Pensylvania to Carolina. 4. June, July. v. v. In colour and shape resembling No. 1; but the flowers are smaller and closer, in a short spike.
- lacera.

  5. O. labello 3-partito, laciniis subdigitato-filiformibus, cornu germen subæquante, floribus alternis.—Mich.

  fl. amer. 2. p. 156.
  - O. radice palmata, foliis lilii, &c. Clayt. n. 644.
    In low meadows: Pensylvania to Virginia. 4. July.
    v. v. Flowers greenish-white. Roots not known.
- clavellata.

  6. O. labello ovato integerrimo, petalis conniventibus, cornu clavato longitudine germinis, caule unifoliato.

  Willd. sp. pl. 4. p. 10. Mich. fl. amer. 2. p. 155.
  - In Carolina. *Michaux*. 4. +. A loose spike, with few flowers; bractes very short.
- quinqueseta. 7. O. labello 5-partito: laciniis setaceis, cornu germine duplo longiore.—Mich. fl. amer. 2. p. 155.

  In sandy low fields, on the side of swamps: Virginia and Carolina. 4. June, July. v.v. A loose spike, with alternate and distant flowers; bractes acuminate; leaves ovate, acute.
  - 8. O. labello petalis longiore tripartito: laciniis lateralibus brevibus acutis, intermedia producta spathulata, cornu filiformi germine subduplo-longiore, folio unico radicali ovato-cordato.
    - Orchis floribus sparsis, nectario pedunculum superante, &c. Gron. virg. 137.
    - In pine-barrens: New Jersey to South Carolina. 4. July. v. v.
    - Bulbis testiculatis, ovatis, acutis. Folium unicum, ovatum, petiolatum, plicato-nervosum, glabrum, subtus purpurascens. Petiolus margine plicato-undulatus. Scapus pedalis, nudus, vagina una alterave instructus, teres, glaber. Flores laxe spicati, brevissime pedicellati, nutantes, tristi- scu exviridi-purpurascentes. Petala oblonga, acutiuscula, flexuosa. Labellum petalis longius, margine subundatum. Cornu adscendens, filiforme, flexuosum, purpureum.

### \*\* Radicibus palmatis.

flava. 9. O. labello trifido integerrimo: lacinia media majore, cornu filiformi longitudine germinis, spica elongata congesta, bracteis flore longioribus.—Willd. sp. pl. 4. p. 33.

In Virginia. 4. July. v. s. in Herb. Gronov. Flowers yellow.

10. O. labello lineari apice tridentato, petalis conniventibus, cornu obtuso scrotiformi, bracteis flore sesquilongio-Willd. sp. pl. 4. p. 33.

viridis.

Satyrium viride. Sp. pl. 1357.

Icon. Fl. dan. 77. Hall. helv. t. 26.

In dry grassy places, on the high mountains of Virginia and Carolina. 4. June, July. v. v. Not above three inches high; flower small, greenish-white.

tridentata.

11. O. labello lanceolato apice tridentato, petalis obtusis, cornu filiformi apice clavato-adscendente germine longiore. Willd. sp. pl. 4. p. 41.

On the high mountains of Pensylvania and Virginia. 4. June, July. v. v. Spike consisting of but a few

small white flowers.

12. O. labello lineari apice emarginato obsolete 3-dentato, petalis subconniventibus, lateralibus ovatis latioribus, cornu obtuso scrotiforme, bracteis flore duplo longioribus patentibus. Willd. sp. pl. 4. p. 34.

Icon. Parad. lond. 110.

O. foliis duobus inferioribus ovatis, superioribus, &c. Gron. virg. 136.

In low shady places: Pensylvania to Virginia. 4. July, Aug. v.v. About a span high; flowers green.

13. O. labello oblongo lanceolato indiviso, petalis erectis, cornu obtuso scrotiformi, germinibus pedicellatis, Willd. sp. pl. 4. p. 34. scapo nudo.

Serapias foliis ovatis radicalibus, scapo nudo multifloro.

Gron. virg. 137.

In low shady places: New England to Virginia; rare. 4. July, Aug. v. v. The bractes are very short.

# \*\*\* Radicibus fasciculatis.

14. O. labello ovato basi dentato, petalis patentibus, cornu subulato germinis longitudine. Willd. sp. pl. 4. p. 35.

Icon. Gmel. fl. sib. 1. p. 20. t. 4. f. 2.

On grassy hills: Pensylvania. 4. July. v.v. Flowers in long spikes, dark or brownish yellow; bractes very long, acuminate, and longer than the flowers.

15. O. labello obovato indiviso crenato retuso, petalis rectis, lateralibus longioribus, cornu clavato germine breviore, bracteis flore longioribus, caule aphyllo. Willd. sp. pl. 4. p. 36.

bracteata.

obsoleta.

fuscescens.

spectabilis.

O. humilis. Mich. fl. amer. 2. p. 155.

In shady, rocky situations: New York to Carolina; particularly on the mountains. 24. May, June. v. v. About a span high; flowers large, purple and white, very handsome.

orbiculata.

16. O. labello lineari integerrimo obtusiusculo, petalis 3. superioribus conniventibus, 2. lateralibus patentibus basi obliquis, cornu germine longiore, scapo basi di-

phyllo, foliis planis orbiculatis.

In shady beech-woods: on the mountains of Pensylvania and Virginia. 4. July, Aug. v. v. Resembles O. bifolia. Two leaves of a fleshy texture are spread flat on the ground, between which rises the stalk about a foot or eighteen inches high, which bears a loose spike of greenish-white flowers. It is known in the mountains by the name of Heal-all.

dilatata.

17. O. labello lineari integerrimo obtusiusculo, basi subrotundato-dilatato, cornu longitudine labelli : germine breviore, bracteis longitudine florum, caule folioso. O. acuta. Herb. Banks. mss.

In Labrador. Colmaster. 1. v. s. in Herb. Dickson.

virescens.

18. O. labello lanceolato crenato, petalis conniventibus, cornu obtuso scrotiformi, bracteis flore longioribus. Willd. sp. pl. 4. p. 37.

In boggy meadows: Pensylvania. 4. July. v. s. From a foot to eighteen inches high; flowers green.

hyperborea.

19. O. labello lanceolato magnitudine petalorum patentium, cornu subulato germine breviore, spica ovata, bracteis longitudine florum.—Willd. sp. pl. 4. p. 37.

Icon. Retz obs. bot. 4, t. 3.

In Hudson's Bay, near Albany. Hutchinson. 4. June, July. v. s. in Herb. Banks. Flowers greenish-yellow.

obtusata.

20. O. labello lineari integerrimo cornu longiore, cornu longitudine germinis, folio unico radicali subcuneiformiobtuso .- Herb. Banks. mss.

On Hudson's Bay, near Fort Albany. Hutchinson. 4. v. s. in Herb. Banks. A small species, with a few flowers only.

rotundifolia.

21. O. labello 3-fido; intermedio bifido, cornu germine breviore, foliis ovali-subrotundis.—Herb. Banks. mss. On Hudson's Bay. 4. v. s. in Herb. Banks.

fimbriata.

22. O. labello tripartito, laciniis cuneiformibus ciliato-fimbriatis, petalis lateralibus ovatis dentatis, cornu filiformi clavato germine longiore. Willd. sp. pl. 4.

p. 39.

In low meadows and on high mountain bogs: Canada to Pensylvania. 4. July. v. v. From a foot to two high; flowers purple, very handsome.

23. O. labello tripartito, laciniis cuneiformibus inciso-dentatis, intermedia emarginata, petalis lateralibus obtusis subdentatis, cornu subulato adscendente germinis longi-

tudine. Willd. sp. pl. 4. p. 40.

In low meadows: New York to Virginia. 4. July. v. v. Resembles the preceding; flowers smaller and paler in colour. In the mountain meadows it grows, like the following, to a very great height, sometimes exceeding three and four feet.

24. O. labello tripartito, laciniis cuneiformibus dentatis, intermedio bilobo, cornu filiformi apice clavato adscendente germine longiore. Willd. sp. pl. 4. p. 40.

In mountain meadows: Pensylvania to Virginia. 4. July, Aug. v. v. Resembles the preceding; flowers dark purple.

#### 672. NEOTTIA. Swartz. act. holm. 1800. p. 224.

1. N. foliis radicalibus linearibus, scapo vaginato, floribus spiraliter-secundis, labio trifido; medio majori crenulato.—Willd. sp. pl. 4. p. 74.

Satyrium spirale. Swartz. prodr. 118.

Ophrys æstivalis. Mich. fl. amer. 2. p. 157. Limodorum præcox. Walt. fl. car. 221.

In low spongy meadows: Pensylvania to Carolina. 4. June, July. v. v. From ten inches to a foot high; flowers white. This and the following species are known by the name of Ladies Traces.

2. N. foliis lanceolatis trinervibus, caule vaginato, spica oblonga densiflora, floribus recurvato-cernuis, labello oblongo integerrimo acuto.—Willd. sp. pl. 4. p. 75.

Ophrys cernua. Sp. pl. 1340.

Limodorum autumnale. Walt. fl. car. 221.

In grassy and springy places: Canada to Carolina. 4.

July, Aug. v. v. Resembles the preceding, but the spikes are closer and the flowers double the size.

3. N. foliis radicalibus ovatis petiolatis reticulatis, scapo vaginato floribusque pubescentibus, floribus secundis, labello petalisque lanceolatis. Willd. sp. pl. 4. p. 76. Satyrium repens. Sp. pl. 1339.

incisa.

fissa.

tortilis.

cernua.

repens

Icon. Jacq. austr. 369. Hall. helv. t. 22. Com. hort.

In rocky, shady pine-woods, on the high mountains of Virginia. 4. July. v. v. Not above three inches high; stem creeping; leaves delicately veined; flowers white.

pubescens.

 N. foliis radicalibus ovatis petiolatis reticulatis, scapo vaginato floribusque pubescentibus, labello ovato acuminato, petalis ovatis. Willd. sp. pl. 4. p. 76.

Satyrium repens. Mich. fl. amer. 2. p. 137.

In shady and rocky situations: Canada to Florida. 4.

July. v. v. Resembles the preceding; is more robust, and the leaves more distinctly and handsomely variegated with white veins. This plant has lately made a great noise among the country people, as infallibly curing the bite of a mad dog.

#### 673. ARETHUSA. Swartz. act. holm. 1800. p. 230.

bulbosa.

A. aphylla; radice globosa, scapo vaginato unifloro, calyce laciniis superioribus incurvatis, labello subcrenulato.—Willd. sp. pl. 4. p. 80.

Icon. Lam. illustr. t. 729. f. 1. Pluk. mant. t. 348. f. 7.
In sphagnous swamps: Canada to Carolina. 4. June.
v. v. Flowers large, purple, sweet-scented.

ophioglossoides. A. radice fibrosa, scapo dissite bifoliato 1—2-floro, foliis ovali-lanceolatis, labello fimbriato.—Willd. sp. pl. 4. p. SO.

Icon. Lam. illustr. t. 729. f. 2.

In bogs and sphagnous swamps: Canada to Carolina. 4. June, July. v. v. Flowers nearly the size of the preceding, purple, sometimes white.

divaricata.

3. A. radice subpalmata, scapo remote bifoliato unifloro, foliis oblongis obtusiusculis, petalis exterioribus adscendentibus longo-linearibus, labello eroso-subcrenulato.—Willd. sp. pl. 4. p. 81.

Icon. Lam. illustr. t. 729. f. 3. Catesb. car. 1. t. 58.
In swamps near the sea-coast: Virginia to Florida. 4.
July. v. v. Flowers larger than any of the preceding, purple.

pendula.

A. radice tuberosa, caule folioso summitate subtrifloro, foliis ovatis alternis, floribus longo-pedunculatis alternis, labello integro.—Willd. sp. pl. 4. p. 82.
 A. trianthophoros. Swartz. act. holm. 1800. p. 230.

A. parviflora. Mich. fl. amer. 2. p. 160.

Icon. Pluk. mant. t. 348. f. 6.

In shady woods, round the roots of beech-trees: New York to Kentucky. 2. July. v. v. Not above three or four inches high; flowers pale purple, small.

5. A. foliis quinis oblongo-lanceolatis verticillatis, caule unifloro, petalis tribus exterioribus longissimis linearibus, interioribus lanceolatis, labello trilobo, lacinia media undulata. Willd. sp. pl. 4. p. 81.

Icon. Pluk. mant. t. 348. f. 1. lona.

In shady woods, near the banks of rivulets: Pensylvania to Virginia. 4. July. v. v. A very scarce and handsome species; flowers, the size and shape of A. divaricata, of a dull purple mixed with yellow. It has sometimes two or three flowers.

6. A. foliis verticillatis oblongis acuminatis, caule unifloro, flore subsessili, petalis tribus exterioribus linearibus, interioribus brevioribus oblongis obtusis, labello petalis consimile.

In shady woods on the Blue-mountains. Vanvleck. 21. July. v. s. in Herb. Vanvleck. Resembles the preceding in general habit.

674. EPIPACTIS. Swartz. act. holm. 1800. p. 231.

1. E. foliis radicalibus ovatis acutis, scapo aphyllo pubescente laxifloro, floribus pedicellatis, labello bilobo vix petalis conniventibus longiore, capsulis clavatis, radice palmato.

Ophrys pubera. Mich. fl. amer. 2. p. 158.

Arethusa racemosa. Walt. fl. car. 222.

Serapias foliis ovatis radicalibus, scapo nudo multifloro. Gron. fl. virg. 137.

In pine-barrens of Carolina and Georgia. 4. June. v. s. in Herb. Gronov. et Walter. Flowers small, greenish-white.

2. E. caule bifolio, foliis oppositis cordato-subrotundis acu- convallarioitis, spica parviflora, labello oblongo apice dilatato obtuse bilobo, germine subgloboso, radice fibrosa.--Willd. sp. pl. 4. p. 88.

Ophrys cordata. Mich. fl. amer. 2. p. 158.

In shady cedar-swamps and sphagnous woods: Canada to New Jersey; rare. U. May. v. v. A very small plant; flowers dark-brown, mixed with green.

verticillata.

medeoloides.

pubescens.

des.

675. MALAXIS. Swartz. act. holm. 1800. p. 233.

ophioglossoides.

M. folio solitario ovato amplexicauli, scapo pentagono, labello apice bifido. Willd. sp. pl. 4. p. 90.
 M. unifolia. Mich. fl. amer. 2. p. 157.

In shady woods: Pensylvania to Florida. 4. May, June. v. v.

liliifolia.

2. M. foliis binis ovato-lanceolatis, scapo triquetro, petalis interioribus filiformibus reflexis discoloribus, labello concavo obovato apice acuto.—Willd. sp. pl. 4. p. 92.

Ophrys trifolia. Walt. fl. car. 221.

Ophrys scapo nudo, foliis radicalibus, &c. Gron. virg. p. 138.

Epidendrum caule erecto simplicissimo nudo, racemo simplici erecto. Gron. virg. p. 140.

Icon. Bot. rep. 65.

In shady wet woods, round the roots of trees: Canada to Virginia. 4. June, July. v. v. The three outside petals are sharp-pointed, white; the two inside ones thread-shaped, yellowish, and reflex; the lower lip broad-obovate with an abrupt point of a pale olive colour.

#### 676. CYMBIDIUM. Swartz. nov. act. ups. 6. p. 70.

pulchellum.

1. C. foliis radicalibus ensiformibus nervosis, scapo paucifloro, labello erecto basi attenuato, lamina expansa, disco concavo barbato.—Willd. sp. pl. 4. p. 105.

Limodorum tuberosum. Syst. veg. 680. Mich. fl. a-mer. 2. p. 159.

Limodorum pulchellum. Salish. prodr. 8.

Ophrys barbata. Walt. fl. car. 221.

Icon. Bot. mag. 116.

In sphagnous swamps: Canada to Florida. 4. July. v. v. Flowers purple, very handsome.

verecundum.

 C. foliis radicalibus lato-lanceolatis plicato-nervosis, scapo multifloro, petalis interioribus conniventibus, labello ventricoso, lamina emarginata crispa sulcata. Willd. sp. pl. 4. p. 105.

Limodorum verecundum. Salisb. prodr. 9. Limodorum tuberosum. Jacq. collect. 4. p. 108. Limodorum altum. Jacq. ic. rar. 3. t. 602. Limodorum trifidum. Mich. fl. amer. 2. p. 159. Icon. Mart. cent. t. 50. Mill. ic. 145. In Carolina and Florida. 2. July, Aug. v. v. Resembles the preceding, but is larger.

3. C. foliis radicalibus geminis ovatis multinervibus, scapo simplici vaginato erecto, petalis erectis, tribus exterioribus lanceolatis, interioribus oblongis, labello obovato margine undulato-crenato, - Willd, sp. pl. 4. p. 107.

Arethusa spicata. Walt. fl. car. 222.

On the side of fertile hills, under the shade of trees: Pensylvania to Carolina. 4. May. v. v. Flowers greenish-purple. It is known among the inhabitants by the name of Adam and Eve. The roots bruised, with a small addition of water, give a strong cement, which when applied to broken china and glass is exceedingly durable.

4. C. scapo vaginato aphyllo, floribus pedicellatis, petalis lanceolatis æqualibus, labello ovato obtuso. Willd. sp. pl. 4. p. 110.

Ophrys corallorhiza. Mich. fl. amer. 2. p. 158.

Icon. Pluk. alm. t. 211. f. 1 & 2.

In shady woods, about the roots of trees: Canada to Virginia. Flowers small, dark purple mixed with yellow.

677. CALYPSO. Salisb. in parad. lond. t. 89.

1. C. folio radicali unico subrotundo-ovato nervoso, scapo unifloro vaginato. - Salish. l. c.

Limodorum boreale. Willd. sp. pl. 123. Cypripedium bulbosum. Sp. pl. 1347.

Cymbidium boreale. Swartz. nov. act. ups. 6, p. 76. Icon. Parad. lond. 89. Smith spicil. t. 11. Gmel. fl.

sib. 1. t. 2. f. 5.

In Nova Scotia. Menzies. On the Columbia river. M. Lewis. 4. May, June. v. s. in Herb. Lewis. Flower large, purplish rose-coloured; the lower lip resembling Cypripedium.

hyemale.

Odontorhizon.

borealis.

#### II. DIANDRIA.

678. CYPRIPEDIUM. Swartz. act. holm. 1800, p. 250.

candidum.

1. C. caule folioso, foliis oblongo-lanceolatis, lobo styli lanceolato obtusiusculo, labello petalis lanceolatis breviore compresso.—Willd. sp. pl. 4. p. 142.

In Pensylvania. Muhlenberg. 4. +. Resembles C. Calceolus; but the flowers are white, and not half the size: the form of the leaves and lobe of the style

distinguish it sufficiently.

parviflorum.

2. C. caule folioso, lobo styli triangulari acuto, petalis exterioribus ovato-oblongis acuminatis, interioribus linearibus contortis, labello petalis breviore compresso. Willd. sp. pl. 4. p. 143.

C. Calceolus. Mich. fl. amer. 2. p. 161.

Icon. Salish in linn. trans. 1. p. 77. t. 2. f. 2. Pluk.

mant. t. 418. f. 2.

In shady fertile woods: New Jersey to Carolina. 4. May, June. v. v. Petals greenish-brown; lower lip yellow, with brown spots.

pubescens.

3. C. caule folioso, lobo styli triangulari-oblongo obtuso, petalis exterioribus ovato-oblongis acuminatis, interioribus longissimis linearibus contortis, labello petalis breviore compresso. Willd. sp. pl. 4. p. 143.

C. flavescens. Redout. pl. liliac.
C. Calceolus. β. Sp. pl. 1346.

Icon. Willd. hort, berol. 1. t. 13. Moris. hist. 3. s. 12. t. 11. f. 15.

C. Calceolus. Walt. fl. car. 222.

On sunny fertile hills, among small trees and bushes, generally in rocky situations: Pensylvania to Carolina. 4. May. v. v. Petals greenish-yellow with red spots; lower lip yellow. It approaches near to the preceding. Sometimes it is found with two or three flowers.

spectabile.

4. C. caule folioso, lobo styli elliptico-cordato obtuso, petalis exterioribus lato-ovalibus obtusis, labello petalis longiore antice fisso.—Willd. sp. pl. 4. p. 143.

C. album. Ait. kew. 3. p. 303.

C. canadense. Mich. fl. amer. 2. p. 161.

C. reginæ. Walt. fl. car. 222.

C. Calceolus y. Sp. pl. 1346.

Icon. Bot. mag. 216. Pluk. mant. t. 418. f. 3. Moris. hist. 3. s. 12. t. 11. f. 17.

In low meadows and bogs, particularly in the mountainous tracts: Canada to Carolina. 4. May, June. v. v. From eighteen inches to three feet high. The plant in its foliage resembles Helleborus viridis; the flowers are generally by two, sometimes three, very large, the lower lip white with red veins, and crimson spots inside.

5. C. caule folioso, lobo styli orbiculato obtusiusculo, petalis 5, duobus inferioribus lineari-lanceolatis deflexis, lateralibus linearibus horizontalibus, supremo ovatooblongo acuto, labello longitudine petalorum antice obverse-conico saccato. - Ait. kew. ed. 2. tom. 5.

p. . . . .

In shady sphagnous woods, about Montreal, Canada. 4. May. v. v. Flower small, petals M' Kenzie. greenish-brown; lower lip white, with crimson veins; of a very singular structure, resembling at a front view a sheep's head, the two lateral petals forming the horns. The stem is pubescent, not a span high; leaves smooth, in general alternately by four. It distinguishes itself very strongly from all the rest by having five petals, and by the singular structure of its lower lip.

6. C. scapo aphyllo unifloro, foliis radicalibus geminis oblongis obtusis, lobo styli subrotundo-rhombeo acuminato deflexo, labello petalis lanceolatis longiore antice fisso. Willd. sp. pl. 4. p. 144.

C. acaule. Ait. kew. 3. p. 161.

Icon. Bot. mag. 192. Salish in linn. trans. 1. t. 3. f. 4. Catesb. car. app. t. 3. Pluk. mant. t. 418. f. 1.

In shady rocky situations and on dry mountain bogs: Canada to Carolina. 4. May, June. v. v. Not much above a span high; flower purple, large. I have observed a white variety on the Broad-mountains, Pensylvania. The whole of this genus is known among the inhabitants by the name of Mocassim Flower, or sometimes Ladies Slippers.

Arietinum.

humile.

### III. HEXANDRIA.

#### 679. ARISTOLOCHIA. Gen. pl. 1383.

Sipho.

1. A. foliis cordatis acutis, caule volubili, pedunculis unifloris bractea ovata instructis, corollis adscendentibus, limbo trifido æquali. Willd. sp. pl. 4. p. 155.

A. macrophylla. Lam. encycl. 1. p. 252. lcon. Bot. mag. 534. L'Herit. stirp. t. 7.

Vo. v. v. A very high running vine; leaves large, and well calculated to form shady bowers; flowers very singular in structure, yellowish-brown; the leaves are more or less pubescent.

Serpentaria.

A. foliis cordatis oblongis acuminatis, caule flexuoso adscendente, pedunculis radicalibus, corollæ labio lanceolato. Willd. sp. pl. 4. p. 159.

In shady woods, on fertile soil: New England to Carolina; principally throughout the mountains. 4. May, June. v. v. This is the famous Virginia Snake-root, so very highly and, I think, deservedly esteemed by the Indians and white inhabitants of America. I have seen a very parrow and long-leaved variety of it, which, if there were any difference in the flowers, might claim to be a distinct species.

## IV. DODECANDRIA.

### 680. ASARUM. Gen. pl. 801.

canadense.

1. A. foliis lato-reniformibus geminatis, calyce lanato profunde tripartito, laciniis sublanceolatis reflexis.—

Mich. fl. amer. 1. p. 279. Willd. sp. pl. 2. p. 838.

A. carolinianum. Walt. fl. car. 143.

A. latifolium. Salisb. prodr. 344.

Icon. Moris. hist. 3. s. 13. t. 7. f. 4. Corn. canad. t. 25.

In shady rocky situations: Canada to Carolina. 4.

April. v. v. The root is highly aromatic, and known by the inhabitants under the name of Wild Ginger. It is said to be made use of by the Indian females to prevent impregnation.

- 2. A. foliis solitariis rotundato-cordatis glabris coriaceis, virginicum, flore subsessili, calyce extus glabro breviter campanulato .- Mich. fl. amer. 1. p. 279. Willd. sp. pl. 2. p. 838.
  - In shady rocky woods: Virginia and Carolina. 4. May. v. v. Leaves white speckled, very smooth.
- 3. A. foliis subhastato-cordatis coriaceis, calyce tubuloso infra limbum brevissimo trifidum coarctato. Mich. fl. amer. 1. p. 279.

A. virginicum. Walt. fl. car. 143. In shady woods of Lower Carolina. 4. May. v. v. Leaves speckled.

arifolium.

# XIX. DICLINIA.

#### I. SEGREGATÆ.

#### \* Uniloculares.

681. VALISNERIA. Dioica. Masc. Spatha 2-partita. Spadix conicus tectus flosculis. Cal. 3-partitus. Stam. 2. Fem. Spatha tubulosa, 2-fida, 1-flora. Cal. superus, longissimus, limbo 6-partito, laciniis alternis linearibus. Stigmata 3. semibifida. Caps. cylindrica, 1-locularis, polysperma.

682. NAJAS. *Monoica. Masc. Cal.* cylindricus, 2-fidus. *Stamen* 1. filamento longo, anthera 4-valvi: valvis patentibus. *Fem. Cal.* O. *Styl.* 1. *Stigm.* 2. *Nux* 

4-sperma.

683. DIOTIS. Monoica. Masc. Cal. 4-phyllus. Stam. 4. Fem. Cal. 1-phyllus, bicornis. Stylus 2-partitus. Sem. 1. villosum, calyce bicorni tectum.

- \*\* Tricoccæ : Capsula 3-locularis, 3-sperma. Stamina monadelpha. Monoica.
- 684. RICINUS. Masc. Cal. 5-partitus. Stam. numerosa. Fem. Cal. 3-partitus. Styli 3. bifidi. Caps. echinata.
- 685. JATROPHA. Masc. Cor. 1-petala, infundibuliformis. Stam. 10. alterna breviora. Fem. Cor. 5-petala, patens. Styli 3. bifidi.
- 686. CROTON. Mass. Cal. cylindricus, 5-dentatus. Cor. 5-petala, aut 0. Stam. 10—15. Fem. Cal. polyphyllus. Cor. 0. Styli 3. bifidi.

687. ACALYPHA. Cal. 3-4-partitus, 1-bracteatus. Masc.

Bractea squamiformis. Stam. 8—16 Fem. Bractea magna cordata involucriformis. Styli 3. bifidi.

tea magna cordata involucriformis. Styli 3. bifidi, 688. TRAGIA. Masc. Cal. 3-partitus. Stam. 3. subsessilia. Fem. Cal. 5-partitus. Stylus 3-fidus. 689. EUPHORBIA. Involucrum commune calyciforme, limbo extrorsum appendicibus petaloideis, plerumque 5.; introrsum lacinulis totidem alternis et denticulatis. Masc. tot quot lacinulæ. Cal polyphyllus: foliolis pinnatim laciniatis. Stam. 4-5. aut plura. Flos fem. centralis, nudus, solitarius, stipitatus. Styli 3. bifidi.

690. STILLINGIA. Involucrum coriaceum, urceolatum, in masculis multiflorum, 1-florum in femmeis. Cal. tubulosus, infundibuliformis, limbo ciliato. Masc. Stam. 2. exerta, basi coalita. Fem. Stylus filiformis.

Stigm. 3.

#### II. AMENTACEÆ.

#### \* Flores dioici.

691. SALIX. Amenta cylindracea, imbricata: squamis 1-floris. Cal. O. Masc. Glandula baseos nectarifera. Stam. 1—6. interdum monadelpha. Fem. Styl. bifidus. Caps. 1-locularis, 2-valvis, polysperma. Sem. papposa.

692. POPULUS. Amenta cylindracea, laxe imbricata: squamis margine laceris, 1-floris. Cal. urceolatus, integer. Masc. Stam. 8. exerta. Fem. Stigma 4-fidum. Caps. 2-locularis, 2-valvis, polysperma.

Sem. papposa.

693. MYRICA. Amenta ovata, imbricata: squamis lunatis, trifloris. Cal. O. Masc. Squama 4-andra, rarius 6-andra. Fem. Styli 2. Drupa 1-sperma.

#### \*\* Flores monoici.

694. BETULA. Amenta imbricata: squamis peltatis, 3-floris, 3-fidis. Masc. Cal. 4-partitus. Stam. 10—12. Fem. Squama 2-flora. Cal. 0. Stigm. 2. Sem. 1. utringue membrana alatum.

695. ALNUS. Amentum receptaculis cuneiformibus truncatis 3-floris compositum. Masc. Cal. 4-partitus. Stam. 4. Fem. squama biflora. Cal. O. Stigm. 2.

Sem. 1. compressum, ovatum, apterum.

696. CARPINUS. Amenta laxe imbricata: squamis 1floris. Cal. O. Masc. Squama ovata, ciliata. Stam.
6-10. Antheræ apice villosæ. Fem. Squama
lanceolata, ciliata, biflora. Germen apice denticulatum. Stigm. 2. Nux ovata, sulcata.

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697. OSTRYA. Amenta imbricata. Masc. Cal. squarra. Fil. ramosa. Fem. Amentum nudum. Caps. inflatæ,

imbricatæ, basi monospermæ.

698. FAGUS. Masc. Amentum subrotundum. Cal. 5fidus, campanulatus. Stam. 8-12. Fem. Cal. 4dentatus, setosus. Germ. 2. Nuces 2. calyce echinato, coriaceo, 4-fido inclusæ.

699. CASTANEA. Masc. Amentum nudum, lineare. Cal. sub-6-phyllus. Stam. 5-20. Fem. Cal. 5-6-phyllus, muricatus. Germ. 3. Stigm. penicilliformia.

Nuces 3. calyce echinato inclusæ.

700. QUERCUS. Masc. Amentum nudum, lineare. Cal. sub-5-fidus. Stam. 4-10. Fem. Cal. plerumque 6-dentatus, scaber. Styli 2-5. Nux coriacea,

calyce persistente basi cincta.

701. CORYLUS. Masc. Amentum imbricatum: squamis 3-fidis unifloris. Cal. O. Stam. 8. Fem. Cal. bipartitus, lacerus. Styli 2. Nux ovata, calyce persistente cincta.

702. LIQUIDAMBAR. Masc. Amentum conicum, involucro 4-phyllo cinctum. Filam. numerosa. Fem. Amentum globosum, involucro 4-phyllo cinctum. Cal. urceolatus, biflorus. Styli 2. Caps. 2. basi cinctæ, 2-valves, polyspermæ.

703. COMPTONIA. Masc. Amentum cylindricum, laxe imbricatum; squamis 1-floris. Cal. 2-phyllus. Filam. 3. bifurcata. Fem. Amentum ovatum. Cal. 6-

phyllus. Styli 2. Nux ovata, 1-locularis.

704. PLATANUS. Amentum globosum. Masc. Cor. vix manifesta. Antheræ filamentum circumnatæ. Fem. Cor. polypetala. Styli stigmate recurvo. Sem. sub-

rotunda, stylo mucronata, basi papposa.

705. JUGLANS. Masc. Amentum imbricatum. partitus. Filam. 4-18. Fem. Cal. 4-fidus, superus. Cor. 4-partita. Styli 2. Drupa coriacea, nuce sulcata.

706. MORUS. Amentum subglobosum. Masc. Cal. 4partitus. Filam. 4. Fem. Cal. 4-phyllus. Styli 2.

Cal. baccatus. Sem. 1.

#### III. CONIFERÆ.

#### \* Flores monoici.

707. PINUS. Masc. Amentum imbricatum. Cal. 4-phyllus. Stam. plurima. Anth. nudæ. Fem. Cal. strobili s. coni: squama biflora. Pistill. 1. Nux ala membranacea excepta.

708. CUFRESSUS Masc. Amentum ovatum, imbricatum: squamis (20) oppositis, apice peltatis, basi 4-andris. Anth. sessiles. Fem. Conus subrotundus: squamis (8—10) oppositis, peltatis. Germina sub singulis plurima minima serie simplici. Styl. 0. Stigm. cylindricum, fistulosum. Nux angulosa 1-sperma.

709. THUYA. Masc. Amentum ovatum: squamis 6. trino ordine oppositis, apice obtusis, basi 4-andris; Anth. substipitatæ. Fem. Conus subovatus: squamis oblongis apice incrassatis, longitudinaliter conniventibus. Germina 2. Styl. brevissimus. Stigm. concavum. Caps. 1-spermæ, margine alato.

#### \*\* Flores dioici.

- 710. JUNIPERUS. Amenta ovata: squamis stipitato-peltatis. Masc. Squamæ ternatim verticillatæ, stipite 2-3-4-antherifero. Fem. Squamæ pauciores, cruciatim oppositæ. Germ. 1. Styl. O. Stigm. tubulosum. Fructus bacciformis, carnosus. Nux 1-locularis.
- 711. TAXUS. Gemma polyphylla, opposite-imbricata. Cal. O. Masc. Anther & peltatæ, 8-fidæ. Fem. Germ. 1. Styl. O. Stigm. 1. Receptaculum cupulæforme, nuce ovata, nuda.
- 712. ZAMIA. Amentum strobiliforme. Masc. Squama obovata. Cal. O. Antheræ plures, globosæ, rima dehiscentes, in squama sessiles. Fem. Squamæ peltatæ. Germ. 2. Styl. O. Baccæ 2. 7-spermæ.

#### I. SEGREGATÆ.

### 681. VALLISNERIA. Gen. pl. 1491.

americana.

1. V. foliis linearibus, pedunculis masculis femineisque rectis. Willd. sp. pl. 4. p. 651. Mich. fl. amer. 2. p. 220.

At the bottom of muddy and slow-flowing rivers: Mississippi and St. John's, Florida. Michaux. In Oswego river, New York; Delaware, Pensylvania, and James's and Greenbriar rivers, Virginia. Ph. 4. 3? Aug.—Oct. v. v. This most interesting and singular plant I observed in the Delaware, near Philadelphia, in 1800; which discovery I communicated, accompanied with a drawing and description, to Dr. B. S. Barton, of Philadelphia. The æconomy of its fæcundation is highly interesting to the young student of the sexual system. Michaux and Willdenow consider it as specifically distinct from V. spiralis; but I have always considered it only a local variety, as the peduncles of the female flowers are in deep water really spiral.

682. NAJAS. Willd. act. acad. berol. 1798, p. 85.

canadensis.

N. pusilla, filiformis, lævis; foliis angustissime linearibus. Mich. fl. amer. 2. p. 220.
 In lakes: Canada, on Lake St. John's. Michaux. +.

683. DIOTIS. Gen. pl. 1423.

lanata.

1. D. omnibus partibus cano-tomentosa; caule flexuoso, glomerulis spicarum confertissimis.

On the banks of the Missouri, in open prairies. M. Lewis. 12. Aug. Sept. v. s. in Herb Lewis. Resembles Diotis ceratoides, but is distinct at first sight by its long woolly tomentum.

### 684. RICINUS. Gen. pl. 1464.

communis.

1. R. foliis peltatis palmatis, lobis lanceolatis serratis, caule herbaceo pruinoso, stigmatibus tribus apice bifidis, capsulis echinatis. Willd. sp. pl. 4. p. 564.

Icon. Blackw. t. 148.

In cultivated grounds, frequent in old plantations in Virginia and Carolina. ①. Aug. Sept. v. v. Introduced by the Negroes. Known by the name of Castor-oil Bean.

#### 685. JATROPHA. Gen. pl. 1463.

 J. herbacea, stimulis patulis horridissima; foliis subpalmato-lobatis, lobis obtusiusculis subsinuato-incisis, cymis brevi-pedunculatis. Mich. ft. amer. 2. p. 216.

stimulosa.

J. urens. Walt. fl. car. 239.

Icon. Pluk alm. t 220. f. 3. Marcg. brass. 79. f. 2. In fields and plantations: Virginia to Florida. 4. July, Aug. v. v. Flowers white; roots tuberous and eatable, the same as J. Manihot, which is so generally cultivated in the West Indies under the name of Casseda. The present plant is a very injurious weed in some parts of Carolina, as it ruins the Negroes' feet when they tread upon it; from which it is known by the name of Tread-softly.

### 686. CROTON. Gen. pl. 1462.

tus tomentosis petiolatis, spicis terminalibus paucifloris. Willd sp. pl. 4. p. 532. Walt. fl. car. 239.

maritimum.

C. disjunctiflorum. Mich. fl. amer. 2. p. 214.

β. C. spicis dichotomalibus, flore femineo unico pedicellato. monanthogy-Mich. fl. amer. 2. p. 215. num.

On the sea-coast of Carolina;  $\beta$ . in Tennassee, near Nashville.  $\beta$ .  $\mathcal{U}$ . June, July. v.s. The flowers of this genus are small and inconspicuous. The branches sometimes live over winter, but it cannot be considered a real shrub. Most of the species here mentioned are covered with stellated hairs.

C. suffruticosum, stellato-tomentosum; foliis oblongis
integerrimis subtus tomentosis petiolatis, pedunculis
terminalibus subbifloris.—Willd. sp. pl. 4. p. 535.

argyranthemum.

C. punctatum. Jaiq. ic. rar. 3. t. 621.

In sterile woods of Georgia and Florida. 17. 4. July, Aug. v. s.

3. C. hispidissimum; foliis oblongis serratis subtus hirtis glandulosum. basi subintegerrimis biglandulosis, caule trichotomo, spicis alaribus, capsulis glomeratim sessilibus.—Willd. sp. pl. 4. p. 540.

C. scordioides. Lam. encycl. 2. p. 214.

Icon. Jacq. ic. rar. 1. t. 194.

On the sea-coast of Carolina and Florida. . July, Aug. v. v.

capitatum.

4. C. tomentoso-lanatum; foliis oblongo-ovalibus obtusis basi rotundatis integris, utrinque tomentosis, floribus femineis ad basin spicillæ marium capitatim congestis.

—Mich. fl. amer. 2. p. 214.

In the Illinois country. Michaux. . +. Resembles C. argenteum.

#### 687. ACALYPHA. Gen. pl. 1461.

virginica.

 A. floribus femineis ad basin spicæ masculæ, involucris ovatis acuminatis dentatis, foliis breviter petiolatis oblongo-lanceolatis remote obtuse-serratis.—Willd. sp. pl. 4. p. 521.

Icon. Pluk. phyt. t. 99. f. 4.

In fields, cultivated grounds, and on road sides: Canada to Virginia. ①. June—Aug. v. v.

caroliniana.

2. A. floribus femineis ad basin spicæ masculæ, involucris cordatis dentatis, foliis longe petiolatis subrhombeo-ovatis serratis basi integerrimis.—Willd. sp. pl. 4. p. 521. Walt. fl. car. 238.

In cultivated grounds: Virginia to Florida. ⊙. July, Aug. v. v.

### 688. TRAGIA. Gen. pl. 1410.

urens.

 T. erecta; foliis lanceolatis sessilibus obtusis apice subdentatis, cauleque ramoso pubescentibus. Willd. sp. pl. 4. p. 325.

subovalis.

a. T. foliis oblongo-ovalibus nonnullis subcuneatis. Mich. fl. amer. 2. p. 175.

Icon. Pluk. alm. t. 107. f. 5.

lanceolata.

β. T. foliis lanceolatis subdentatis integrisque. Mich. l. c.
 T. innocua. Walt. fl. car. 229.

linearis.

γ. T. foliis linearibus fere omnibus integris. Mich. l. c.
 In waste places, on road sides and cultivated grounds:
 Virginia to Carolina. ⊙. June—Aug. v. v.

urticifolia.

2. T. erecta, caule hirsutissimo, foliis cordatis ovatis serratis.—Willd. sp. pl. 4. p. 324.

T. mercurialis. Walt. fl. car. 229.

In fields: Virginia to Georgia. . July. v. s. in Herb. Lyon.

3. T. scandens, hispida; foliis profunde cordatis ovatis acute macrocarpa. dentatis.—Willd. sp. pl. 4. p. 323.

In Kentucky. Michaux. O. July. v. s. in Herb.

Lyon.

### 689. EUPHORBIA. Gen. pl. 823.

#### \* Floribus fasciculato-terminalibus.

1. E. fruticescens; foliis petiolatis ovatis subdentatis panduriformibus, summis involucellisque coloratis, floribus
subumbellatis.—Willd. sp. pl. 2. p. 891.

E. heterophylla. Jacq. collect. 1. p. 157.

Icon. Jacq. ic. rar. 3. t. 480. Murr. comm. get. 7.

p. 81. t. 1.

On the banks of the Mississippi, and in Georgia and Florida. h. O. June, July. v. v. About three feet high; upper leaves and involucres painted deep red.

2. E. pumila, hirsuta; foliis oppositis ovalibus dentatis, flores ad summitates congestis. Mich. fl. amer. 2.

In shady rocky situations: Pensylvania to Tennassee. O. July, Aug. v. v. The upper leaves spotted.

3. E. pusilla, erecta, ramosa, pubescens; foliis sparsis linearibus integerrimis, supremis basi discoloribus.—Mich. fl. amer. 2. p. 210.

On the sea-coast of Georgia and Florida. *Michaux.* +. Resembles *E. hyssopifolia*.

### \*\* Dichotomæ. (Umbella bifida aut nulla.)

4. E. glabra, ramosissima, patulo-erecta; ramis divarica- hypericifolia. tis, foliis oppositis serratis ovali-oblongis subfalcatis corymbis terminalibus.—Willd. sp. pl. 2. p. 895.

Icon. Comm. præl. 60. t. 10. Rob. ic. 11. Sloan. hist.

On the banks of rivers and in cultivated sandy grounds: Canada to Florida. O. June—Sept. v. v.

5. E. erecto-patula; foliis oppositis serratis oblongis pilosis, floribus axillaribus solitariis, appendicibus calycinis coloratis.—*Willd. sp. pl. 2. p.* 896.

Icon. Jacq. hort. vind. t. 186. Pluk. alm. t. 65. f. 8. In cultivated grounds: Pensylvania to Carolina. O. July—Sept. v. v. Leaves marked with a brown spot. The involucrum of the florets white.

maculata.

- thymifolia.
- 6. E. humifusa, gracilis, pubescens; foliis oppositis ovalioblongis obtusis superne subserratis, capitulis axillaribus glomeratis subsessilibus.—Willd. sp. pl. 2. p. 898. Icon. Pluk. alm. t 113. f. 2. Burm. zeyl. t. 105. f. 3. On the banks of the Ohio and Mississippi. O. June-Aug. v. v.
- polygonisolia. 7. E. glaberrima, diffusa; foliis oppositis integerrimis lineari-lanceolatis obtusis, floribus solitariis axillaribus.-Willd sp. pl. 2. p. 900.

Icon. Jacq. collect. suppl. t. 13. f. 3.

In cultivated grounds: Canada to Virginia. 2. June-Sept. v. v.

- Ipecacuanhæ. 8. E. procumbens, pumila, glabra; foliis oppositis obovalibus seu lanceolatis, pedunculis axillaribus unifloris elongatis. - Willd. sp. pl. 2. p. 900.

Icon. Bot. mag. 1494.

- In pine-barrens: New Jersey to Carolina. 4. June, July. v. v. This humble species has perhaps the deepest root of any perennial I know; I frequently have dug to the depth of more than six feet, and was by appearance as far off from its end as ever.
- portulaccoides.
- O. E. erecta; foliis integerrimis ovalibus retusis, pedunculis axillaribus unifloris folia æquantibus. - Willd. sp. pl. 2. p. 901.

In sandy soil, and cultivated grounds: Pensylvania. 24.

June-Aug. v. v.

pubentissima. 10. E. erecta; caule calycibusque pubescentibus, foliis oppositis sessilibus subcordato-ovalibus obtusis, pedunculis solitariis capillaribus unifloris, appendicibus calycinis coloratis petaloideis. Mich. fl. amer. 2. p. 212. In Carolina, Michaux, 2. +

### \*\*\* Umbellatæ; involucratæ.

Peplus.

11. E. umbella 3-fida: dichotoma, involucellis ovatis, foliis integerrimis obovatis petiolatis. Willd. sp. pl. 2. p. 903.

Icon. Engl. bot. 959.

In cultivated grounds: Pensylvania and Virginia. July, Aug. v. v.

obtusata.

12. E. umbellata 3-fida: bis dichotoma, involucellis ovatis obtusiusculis subcordatis, foliis alternis sessilibus spathulatis involucellisque serrulatis glabris, capsulis muricatis.

In cultivated grounds: Virginia, near Staunton. 4. July, Aug. v. v. Resembles E. spathuluta.

13. E. caulibus gracile-debilibus, simpliciter 3-fidis, foliis mercurialina. oppositis ternisve subsessilibus ovalibus integris, pedunculis terminalibus solitariis unifloris.—Mich. fl. amer. 2. p. 212.

In shady rocky situations: Pensylvania and Kentucky. 2. July, Aug. v. v. Resembles in aspect Mercuri-

alis annua.

14. E. umbella 3-fida: bis dichotoma, involucro foliiforme, involucellis oblongis cordatis margine membranaceis coloratis, foliis lanceolato-oblongis subcordato-amplexicaulibus acutis glaucescentibus glabris, appendicibus calycinis petaloideis subrotundis, capsulis pilosis.

nli-

On the Yellow-stone river. M. Lewis. O. July. v. s. in Herb. Lewis. A very handsome species; the white margin of the involucre and white petal-like appendices have a fine contrast with the elegant soft green leaves.

15. E. umbella 4-fida: dichotoma, foliis oppositis lanceolatis integerrinis. Willd. sp. pl. 2. p. 906.

Icon. Blackw. t. 123.

Not native, but frequently found near gardens and in cultivated ground. S. July, Aug. v. v. It is generally known in America by the name of Moleplant, it being supposed that no moles disturb the ground where this plant grows.

E. umbella 5-fida: 3-fida: dichotoma; involucellis foliisque oblongis obtusis, appendicibus calycinis petaloideis obovatis.— Willd. sp. pl. 2. p. 916.

Icon. Pluk. mant. t. 446. f. 3.

In dry fields: Canada to Carolina. 4. July, Aug. v. v. It is very variable in its foliage: sometimes the leaves are quite linear.

 E. umbella 5-fida: trifida: bifida, involucris ovatis, petalis integris, foliis lanceolatis subpilosis apice serrulatis. Willd. sp. pl. 2. p. 917.

Icon. Gmel. sib. 2. t. 93.

In shady wet woods, in the mountains of Maryland and Virginia. 4. June, July. v. v. From two to four feet high.

Lathyris.

marginata.

corollata.

pilosa.

#### 690. STILLINGIA. Gen. pl. 1470.

sylvatica.

- 1. S. herbacea; foliis sessilibus oblongis obtusis basi attenuatis serrulatis, flosculis masculis squamam floralem vix superantibus.—Willd. sp. pl. 4. p. 588.
  - In pine-barrens: Virginia to Florida. 24. May, June. v. v. Flowers yellow, in a spike, resembling a catkin.

ligustrina.

2. S. fruticosa; foliis petiolatis ovali-lanceolatis utrinque attenuatis integerrimis, flosculis masculis brevissime pedicellatis.—Willd. sp. pl. 4. p. 588.

In shady woods: Carolina and Georgia. 17. June, July.

sebifera.

 S. arborea; foliis petiolatis rhombeis acuminatis integerrimis, infra basin glandula petiolari, floribus masculis pedicellatis. — Willd. sp. pl. 4. p. 588.

Croton sebiferum. Sp. pl. 1425.

Icon. Pet. gaz. t. 54. f. 3. Pluk. amalth. t. 390. f. 2. On the sea-coast of South Carolina; originally a native of China. b. July, Aug. v. v. Known by the name of Tallow Tree.

### II. AMENTACEÆ.

### 691. SALIX. Gen. pl. 1493.

\* Foliis integerrimis aut obsolete serratis; vernatio revoluta.

viminalis.

S. foliis lanceolato-linearibus longissimis acuminatis integerrimis subundulatis subtus sericeo-argenteis, versus marginem sparse glandulosis, stipulis exiguis, amentis præcocibus, squamis subrotundis pilosissimis, germinibus sessilibus ovatis, stylo filiformi, stigmatibus acutis indivisis.— Willd. sp. pl. 4. p. 706.

Icon. Hoffm. salic. 1. t. 2. f. 1 & 2. t. 5. f. 2. t. 21. f. e.

f. g.

On the banks of rivers and about plantations; introduced from Europe. 1. April, May. v. v. Filaments yellow, anthers orange.

candida.

S. foliis lineari-lanceolatis longissimis apice obsolete denticulatis supra pubescentibus subtus niveo-tomentosis margine revolutis, stipulis lanceolatis petiolum subæ-

quantibus, amentis præcocibus cylindraceis, squamis obovato-lanceolatis longissime villosis.—Willd. sp.

pl. 4. p. 708.

- In dry shady woods: New York to Pensylvania. A April, May. v. v. The native place of this willow is not mentioned by Willdenow; but a plant in the collection of G. Anderson, Esq. which was found among a promiscuous collection of willows made by me on the Catskill mountains, New York, decides the question. To this gentleman's acute observations I am indebted for the present division of Salices "vernatio revoluta," as likewise for the greater part of the present arrangement of American willows.
- 3. S. foliis lanceolatis acutiusculis subintegerrimis pubescenti-canis, subtus rugoso-venosis, margine revolutis, stipulis deciduis lanceolatis, amentis præcocibus diandris, squamis oblongis margine villosis, germinibus ovato-lanceolatis sericeo-villosis longe pedicellatis, stylo brevi, stigmatibus bifidis.—Willd. sp. pl. 4. p. 692.

S. tristis. Muhlb. in annals of bot. 2. p. 68, t. 5. f. 9.

S. alpina. Walt. fl. car. 243.

S. flava. Schoepf. mat. med. amer.

In shady dry woods: New York to Virginia. 1. April. v.v. From three to five feet high; branches greenish-yellow, with black dots; the anthers are purple, changing to yellow when burst; scales white with a red tip, which gives the catkins a very pleasing appearance. In this and the following species I have not been able to ascertain whether the vernatio is revolute; but their natural affinity to the preceding ones strongly indicates that they are so.

4. S. foliis lineari-lanceolatis utrinque acutis integerrimis margine revolutis supra glabriusculis subtus rugosovenosis tomentosis, stipulis nullis, amentis præcocibus oblongis.—Willd. sp. pl. 4. p. 693.

In dry sandy woods: New Jersey to Carolina. 7.
March, April. v. v.; v. s. in Herb. Banks. Ap-

proaches near to the preceding.

5. S. foliis obovato-lanceolatis acutis integerrimis margine glandulosis glabris subtus glaucis, junioribus sericeis, stipulis nullis, amentis præcocibus recurvatis, squamis apice nigris, pilis longitudine germinis, germinibus ovatis brevi-pedicellatis sericeis, stylo brevissimo, atigmatibus bifidis.

Muhlenbergiana.

tristis.

recurvata.

- In shady woods, in the mountains of New Jersey and Pensylvania ? April. v. v. A low shrub; branches brown, smooth; buds yellow.
- \*\* Foliis integerrimis aut obsolete serratis; vernatio equitans.

† Caule repente, depresso aut diffuso.

repens.

6. S. repens; foliis elliptico-lanceolatis integerrimis acutis glabris subtus subsericeis, stipulis nullis, amentis præcocibus ovatis diandris, squamis obovatis obtusis pilosis apice fuscis, germinibus ovato-oblongis pedicellatis pubescentibus, stylo brevissimo, stigmatibus bilobis, capsulis glabris. — Willd. sp. pl. 4. p. 693.

S. depressa. Hoffm. salic. 1. t. 15 & 16.

S. polymorpha. Ehrh. frut. 49.

In Nova Scotia and Newfoundland. 17. May. v. s. in Herb. Banks. A very small creeping species.

reticulata.

7. S. repens; foliis elliptico-orbiculatis obtusis integerrimis glabris reticulato-venosis subtus glaucis, stipulis nullis, amentis serotinis pedunculatis diandris, squamis obovatis obtusis pubescentibus, germinibus ovatis sessilibus villosis, stigmatibus subsessilibus bipartitis.—Willd. sp. pl 4. p. 685.

Icon. Fl. dan. 212. Hoffm. salic. t. 15. 16. 17. Fl.

lapp. t. 8. f. L. & t. 7. f. 1 & 2.

In Labrador, Newfoundland, and on the north-west coast. 1/2. June. v. s. in Herb. Banks. A very low creeping species; leaves very handsomely marked with coloured veins.

vestita.

- 8. S. repens; foliis suborbiculatis integerrimis supra glabris reticulato-venosis subtus villis sericeis longissimis adpressis tectis, stipulis nullis, amentis serotinis pedunculatis linearibus sericeis, germinibus ovatis sessilibus villosis, stylo profunde bipartito, stigmatibus bifidis.
  - In Labrador. 1. June. v. s. in Herb. Lambert. et Banks. A very elegant species, resembling the preceding.

Uva ursi.

9. S. depressa; foliis spathulato-obovatis obtusis integerrimis, inferne margine sparse glandulosis, glabris, supra nitidis, stipulis nullis, amentis serotinis laxis, squamis oblongis ciliatis, germinibus ovatis pedicellatis glabris, stylo bipartito, stigmatibus bilobis.

In Labrador. b. April, May. v. v. in Hort. Anderson.

For this beautiful little species I am indebted to G. Anderson, Esq.; it has all the appearance of Arbutus Uva ursi in habit, as well as in the form of its leaves.

10. S. depressa; foliis ovalibus subacutis basi cordatis integerrimis reticulato venosis supra glabris, subtus pallidis nervo margineque pilosis, stipulis semicordatis.

In Labrador. h. v. v. s. fl. in Hort. Anderson. In general habit it resembles S myrsinites.

11. S. diffusa; foliis obovatis obtusis integerrimis supra glabris, subtus sericeo-villosis, stipulis nullis, amentis subcoætaneis sessilibus oblongis 2-andris, squamis obovatis apice nigris pilosis,

In Labrador. b. Colmaster. North-west coast. Nelson. h. May. v. s. in Herb. Dickson. et Banks. This species is allied to S. Arenaria Linn, and is more in-

clined to be upright than the preceding.

12. S. erectiuscula, divaricata; ramulis lævigatis, foliis oblongo-lanceolatis utrinque acutis medio serrulatis glaberrimis patentibus planis discoloribus, stipulis nullis.

In Labrador. h. v. v. s. fl. in Hort. Anderson. This singular species distinguishes itself at first sight by its remarkable plain and patent leaves; it is inclined to rise from the ground on a single low stem, and approaches to the following division.

#### tt Caule erecto.

13. S. ramulis lævigatis, foliis obovato-lanceolatis acutis integerrimis utrinque glabris concoloribus, stipulis nullis, amentis coætaneis pedunculatis glaberrimis, squamis oblongis pedicello duplo brevioribus vix pilosis, germinibus ovato-oblongis longissime pedicellatis glabris. stigmatibus sessilibus bifidis,

S. pensylvanica. Hortul.

On the Catskill mountains, New York. b. April. v. v. This elegant and singular species flowered in the garden of G. Anderson, Esq., from a plant brought by me from America. He has one through another channel, which appears to be the male to this species.

14. S. foliis suboppositis obovato-lanceolatis acutis glabris Lambertiana. apice subserratis discoloribus, stipulis nullis, amentis præcocibus, squamis orbiculatis nigris, filamento unico, anthera geminata, germinibus sessilibus ovato-ellipticis sericeis, stylo brevissimo, stigmatibus ovatis emarginatis. - Willd. sp. pl. 4. p. 673.

cordifolia.

olovata.

planifolia.

pedicellaris.

Icon. Engl. bot. 1359.

On the banks of rivers and in willow grounds; introduced from Europe. 12. March, April. v.v. It is cultivated on account of its exceeding tough branches for the use of making baskets.

rosmarinifolia. 15. S. foliis strictis lineari-lanceolatis utrinque acutis integerrimis margine subglandulosis supra deciduo-pubescentibus, subtus sericeis, stipulis exiguis lanceolatis erectis, amentis præcocibus ovatis recurvatis, squamis oblongis obtusis ciliatis, germinibus pedicellatis lanceolatis villosis, stigmatibus subsessilibus bifidis.— Willd. sp. pl. 4. p. 679.

Icon. Engl. bot. 1365.

In wet meadows and mountain swamps: Pensylvania to Carolina. 1. March, April. v. v. Not above three feet high. This species, though mentioned as a British plant in the Flora Britannica, is decidedly of American origin; as both sexes have been introduced from that country by G. Anderson, Esq. It has a great resemblance in general character to S. recurvata, but the vernatio equitans removes them far from one another.

fuscata.

16. S. foliis obovato-lanceolatis acutis glabris subserratis subtus glaucis, junioribus pubescentibus, stipulis exiguis, amentis præcocibus nutantibus, squamis obtusis intus vix pilosis, germinibus brevi-pedicellatis ovatis sericeis, stigmatibus sessilibus bilobis.

In low overflowed grounds, on the banks of rivers:

New York to Pensylvania. 12. March, April. v.v.

Branches of the preceding year covered with a dark

brown or black tomentum.

### \*\*\* Foliis remote obtuseque serratis.

eonifera.

17. S. foliis oblongo-lanceolatis remote serratis acutis supra glabris subtus planis tomentosis, annotinis glabris, stipulis lunatis subdentatis, amentis præcocibus diandris, squamis lanceolatis obtusis villosis, germinibus pedicellatis lanceolatis sericeis, stylo bifido, stigmatibus bilobis.—Willd. sp. pl. 4. p. 705.

S. longirostris. Mich. fl. amer. 2. p. 226.

Icon. Wangh. amer. t. 31. f. 72.

In shady woods on gravelly dry soil: New York to Carolina. A. April. v. v. The cone-like excrescence at the end of the branches, occasioned by an insect, is not unfrequently found on other species belonging

to the present division, but particularly on S. prinoides.

myricoides.

18. S. foliis oblongo-lanceolatis acutis basi biglandulosis obtuse serratis glabris subtus glaucis, stipulis ovatis acutis glanduloso-serratis, amentis coætaneis villosis basi foliosis, squamis lanceolatis obtusis villosis atris, germinibus longe pedicellatis lanceolatis glabris, stylo bifido, stigmatibus bifidis.—Willd. sp. pl. 4. p. 666. Icon. Muhlb. in annals of bot. 2. t. 5. f. 2.

In wet meadows and woods: New England to Virginia.

H. April. v. v. Branches green; younger ones

purple, smooth.

19. S. foliis ovali-oblongis acutis remote undulato-serratis glabris subtus glaucis, stipulis semicordatis inciso-dentatis, amentis præcocibus villosis, germinibus pedicellatis ovatis acuminatis sericeis, stylo longo, stigmatibus bifidis.

On the banks of rivers: Pensylvania to Virginia. 12. March, April. v. v. Middle-sized; resembles S. discolor.

20. S. foliis oblongis obtusiusculis glabris remote-serratis apice integerrimis subtus glaucis, stipulis deciduis lanceolatis serratis, amentis subcoætaneis diandris oblongis tomentosis, squamis oblongis acutis atris pilosis, germinibus subsessilibus lanceolatis tomentosis, stylo mediocri, stigmatibus bipartitis.—Willd. sp. pl. 4. p. 665.

Icon. Muhlb. in annals of bot. 2. t. 5. f. 1.

In low grounds and on the banks of rivers; common:

New England to Carolina. 12. April. v. v. Branches
dark brown; filaments white; anthers red, yellow
when burst. This is the most common in use for
basket-making.

21. S. foliis lanceolatis acutis longissimis basi sensim attenuatis serrulatis glaberrimis subconcoloribus, stipulis semicordatis, amentis præcocibus erectis glabriusculis, germinibus pedicellatis ovatis glabris, stylo bifido, stigmatibus 2-lobis.

In shady woods on the banks of rivers: New York and Pensylvania. η. March, April. v. v. Leaves very

long; resembles S prinoides.

22. S. foliis linearibus utrinque acuminatis elongatis remotissime denticulatis glabris concoloribus, stipulis exiguis lanceolatis denticulatis, amentis serotinis pedunprinoides.

discolor.

angustata.

longifolia.

culatis tomentosis d'andris, squamis planis retusis, filamentis basi barbatis squama duplo longioribus.—Willd. sp. pl. 4. p. 670.

Icon. Muhlb. in annals of bot. 2. t. 5. f. 6.

On the banks of the Susquehannah. Muhlenlerg. p. July. +. Not above two feet high; branches brown; branchlets white.

### \*\*\*\* Foliis dense acuteque serratis.

#### + Triandræ. (Filamentis 3-6.)

23. S. ramis pendulis, foliis lanceolatis acuminatis serratis glabris discoloribus, stipulis exiguis subrotundis, amentis coætaneis, germinibus sessilibus ovatis glabris.—
Willd. sp. pl. 4. p. 671.
On road sides and about plantations; introduced from

On road sides and about plantations; introduced from Europe. b. May. v. v. The Weeping Willow is now almost naturalized, being every where planted

for ornament.

Houstoniana. 24. S. foliis lineari-lanceolatis acutis tenuissime serratis utrinque glabris nitidis concoloribus, stipulis nullis, amentis coætaneis cylindricis villosis, squamis ovatis acutis, filamentis 3—5. usque ad medium barbatis.

S. tristis. Hortul.

In Virginia and Carolina. P. v. v. s. fl.; v. s. c. fl. in Herb. Panks. specimen Houstonianum. This species, so frequently found in the gardens under the name of S. tristis, is very far from being in any way related to it. The specimen in the Banksian Herbarium was collected by Fouston, and, as it is said, in Vera Cruz. But I am confident it is a more northern plant, as I frequently have seen it in Virginia. The branches are extremely brittle at their base.

falcata.

25. S. foliis longissimis lineari-lanceolatis superne sensim attenuatis subfalcatis basi acutis approximato-serratis utrinque glabris, junioribus sericeis, stipulis lunatis dentatis deflexis.

On the banks of rivers: Pensylvania to Virginia. 7. v. v. s. fl. A very smooth species; branches very

slender and brown.

nigra.

26. S. foliis lanceolatis utrinque acutis serrulatis concoloribus glabris petiolis et nervo medio supra tomentosis, stipulis exiguis dentatis, amentis coætaneis erectis cylindricis villosis, squamis oblongis villosissimis, filamentis 3-6, basi barbatis, germinibus pedicellatis ovatis gla-

bris, stylo brevissimo; stigmatibus bifidis.—Willd. sp. pl. 4. p. 657. Marsh arb. 293.

S. caroliniana. Mich. fl. amer. 2. p. 226.

S. pentandra. Walt. fl. car. 243.

S. vulgaris. Clayt. fl. virg.

Icon. Mich. arb. 3. t. . . . . Muhlb. in annals of bot. 2. t. 5. f. 5.

On the banks of rivers: Pensylvania and Virginia. 7. May. v. v. A tree about twenty feet high; branches smooth, very brittle at the base.

27. S. foliis ovato-oblongis cuspidato-acuminatis basi rotundatis serratis glandulosis utrinque glabris nitidis, stipulis oblongis glanduloso-serratis, amentis coætaneis sub-3-andris, squamis lanceolatis obtusis basi pilosis apice serratis glabris, germinibus lanceolato-subulatis glabris, stylo bifido, stigmatibus obtusis.—Willd. sp. pl. 4. p. 667.

Icon. Muhlb. in annals of bot. 2. t. 5. f. 7. Mich. arb. 3.

t. ....

In low grounds, about springs: New York to Virginia. h. May. v. v. A very smooth and handsome species; branches yellowish brown; sometimes it grows to the size of a tree, but more generally it is only a shrub. It approaches to S. amygdalina of Europe.

28. S. foliis oblongo-lanceolatis acuminatis basi subcordatis rigidis glabris argute serratis, serratura infima elongata, petiolis villosis, stipulis amplis cordatis obtusis glanduloso-serratis, amentis coætaneis sub-3-andris, squamis lanceolatis atris lanatis, germinibus longe pedicellatis lanceolatis glabris, stylo brevissimo, stigmatibus bipartitis.—Willd. sp. pl. 4. p. 667.

S. cordata. Mich. fl. amer. 2. p. 225.

S. cordifolia. Herb. Banks. mss.

Icon. Muhlb. in annals of bot. 2. t. 5. f. 4.

In swamps and hedges: New England to Virginia. 1. April, May. v.v. Branches green, red towards the end, younger ones pubescent. It is very tough, and much in use by the basket-makers.

29. S. foliis oblongo-lanceolatis acuminatis basi cordatis argute serratis glabris subtus pallidioribus, stipulis amplis ovato-subrotundis cartilagineo-serratis, amentis coætaneis sub-3-andris, squamis lanceolatis lanatis atris, germinibus pedicellatis lanceolatis glabris, stylo

lucida

rigida.

cordata;

brevissimo, stigmatibus bifidis.—Willd. sp. pl. 4. p. 660

Icon. Muhlb. in annals of bot. 2. t. 5. f. 8.

In low and swampy grounds, on the banks of rivers:

New York to Virginia. 1. April, May. v. v. A

very elegant species, about six or eight feet high.

#### †† Diandræ.

grisea.

- 30. S. foliis lanceolatis acuminatis serrulatis supra glabris nervo medio tomentosis subtus sericeis nudisve, stipulis linearibus deflexis deciduis, amentis præcocibus, squamis oblongis pilosis apice atris, germinibus oblongis pedicellatis sericeis, stigmatibus sessilibus obtusis.—Willd. sp. pl. 4. p. 699.
  - S. sericea. Muhlb. in annals of bot. 2. t. 5. f. 8. Marsh.

art.

In low overflowed grounds: Pensylvania to Virginia. b. April. v. v. About eight feet high; branches greenish-purple, very brittle at the base.

petiolaris.

31. S. foliis lanceolatis undique serratis glabris subtus glaucis sericeis basi plerumque inæqualibus, stipulis lunatis dentatis exiguis, amentis præcocibus laxis, squamis obovatis obtusis nigris pilosis, germinibus longe pedicellatis ovatis sericeis, stigmatibus sessilibus bilobis.— Willd. sp. pl. 4. p. 665.

S. pensylvanica. Hortul.

Icon. Engl. bot. 1147.

In swamps and on the banks of rivers; common. b. April. v. v.; v. s. in Herb. Lambert. et Anderson. Branches slender, smooth, dark brown. It has been by mistake adopted as a native of Great Britain.

ælba.

32. S. foliis lanceolatis acuminatis serratis utrinque sericeis, serraturis infimis glandulosis, stipulis obsoletis, amentis coætaneis elongatis, squamis elliptico-lanceolatis concoloribus pubescentibus, germinibus subsessilibus ovato-oblongis denique glabratis, stylo brevi, stigmatibus bipartitis crassis.— Willd. sp. pl. 4. p. 710.

Icon. Hoffm. salic. 1. t. 7. & 8. & t. 24. f. 3.

On road sides and river banks; introduced from Europe. b. April, May. v. v. A tall tree.

vitellina.

33. S. foliis lanceolatis acuminatis crebro-serratis supra glabris subtus discoloribus subsericeis, stipulis nullis, amentis subcoætaneis cylindricis, squamis ovate-lanceolatis concoloribus extus pubescentibus, germinibus sessilibus ovato-lanceolatis glabris, stigmatibus subsessilibus bilobis.—Willd. sp. pl. 4. p. 668.

Icon. Hoffm. salic. 1. t. 11. & 12. & t. 24. f. 1. Engl.

bot. 1050.

- On road sides and about plantations; common. Introduced from Europe. 12. May. v. A middle-sized tree.
- 34. S. foliis lanceolatis acuminatis concoloribus glabris glanduloso-serratis, amentis coætaneis, nectario gemino majusculo: lobis lanceolatis difformibus apice dentatis glabris, flosculis terminalibus 3-andris.

In low grounds: New York and New Jersey. 12. April. v. v. Resembles in leaves and habit the preceding, and

in fructification the following.

35. S. foliis lanceolatis acuminatis undique serratis glaberrimis concoloribus, petiolis dentato-glandulosis, stipulis rotundatis, amentis subcoætaneis, squamis obovatis villosis, nectario masculorum gemino, germinibus subsessilibus lanceolatis glabris, stigmatibus sessilibus bipartitis.—Hoffm. salic. 2. t. 31. Engl. bot. 1937.

On road sides and about plantations. Introduced from Europe. 1. April, May. v. v. A tall tree; branches

very brittle.

36. S. foliis elliptico-ovatis undique serrulatis utrinque glabris nitidis concoloribus, stipulis lanceolatis serratis, ramulis hirtis, amentis subpræcocibus erectis cylindricis, squamis lanceolato-oblongis longe villosis, germinibus ovato-lanceolatis sessilibus sericeis, stigmatibus subsessilibus bifidis.—Willd. sp. pl. 4. p. 678.

Icon. Fl. lapp. t. 8. f. f. t. 7. f. 6. Fl. dan. 1054. Hoffm.

salic. t. 18.

In Labrador. 17. May. v. v. in Hort. Anderson.; v. s. in Herb. Lambert. A small straggling bush, not above a foot high; branches purplish-yellow.

37. S. foliis orbiculatis subretusis serratis utrinque glabris nitidis, stipulis nullis, amentis serotinis paucifloris, squamis obovatis obtusis villosis, germinibus oblongoovatis subsessilibus glabris, stigmatibus brevissimis subsessilibus.—Willd. sp. pl. 4. p. 682.

Icon. Fl. dan. 117. Hoffm. salic. 1. t. 20. Fl. lapp.

t. 8. f. h. t. 7. f. 3. 6 4.

On the north-west coast. D. Nelson. h. June, July.

ambigua.

decipiens.

myrsinites,

herbacea.

v. s. in Herb. Banks. The smallest of all the known species; the stems not above an inch high.

#### 692. POPULUS. Gen. pl. 1531.

balsamifera.

1. P. foliis ovatis acuminatis adpresso-serratis subtus albidis reticulato-venosis, gemmis resinosis. Willd. sp. pl. 4. p. 805.

Icon. Mich. arb. 3. p. 306. t. 13. f. 1. Duham. arb. ed. nov. 2. t. 50. Pall. fl. ross. 1. t. 41. Wangh. amer. t. 28. f. 59. Trew ehret. t. 46. bona.

In Canada, particularly plenty about Hudson's Bay. b. March. v. v. From seventy to eighty feet high; the young buds are covered with a very odoriferous balsam, from which it is called Balsam Poplar; the natives call it Tacamahac.

candicans.

2. P. foliis cordatis ovatis acuminatis obtuse inæqualiter serratis subtus albidis subtriplinervibus reticulato-venosis, petiolis hirsutis, gemmis resinosis, ramis teretibus.-Willd. sp. pl. 4. p. 806.

P. latifolia. Moench. method. p. 338.

P. canadensis. Moench, weissenst. 81.

Icon. Catesb. car. 1. t. 34.

In New England. h. March. v. v. From forty to fifty feet high; the buds are strongly covered with a balsamic fluid.

trepida.

3. P. foliis suborbiculatis abrupte acuminatis dentatis basi supra biglandulosis glabris, junioribus sericeis.—Willd. sp. pl. 4. p. 803.

P. tremuloides. Mich. fl. amer. 2. p. 243.

Icon. Mich. arb. 3. p. 285. t. 8. f. 1. Duham. arb. ed. nov. 2. t. 53.

In extensive swamps: Canada to Pensylvania. April. v. v. From twenty to thirty feet high. nerally known by the name of American Aspen Tree.

monilifera.

4. P. foliis subcordato-deltoidibus glabris basi glandulosis, serraturis cartilagineis hamatis pilosiusculis, nervis patulis, petiolis superne compressis, ramis adultis teretibus.— Willd. sp. pl. 4. p. 805.

P. glandulosa. Moench. method. p. 339. P. caroliniensis. Mænch. weissenst. 81.

Icon. Mich. arb. p. 295. t. 10. f. 2.

In North America. h. April. v. v. in Hortis. From sixty to seventy feet high. Michaux says that it has not been observed in any part of North America growing wild.

5. P. foliis rhomboideis promisse acuminatis circumcirca dentatis glabris, ramulis junioribus pilosis.

betulifolia.

P. hudsonica. Mich. arb. 3. p. 293. t. 10. f. 1.

P. nigra. Mich. fl. amer. 2. p. 244.

On the Hudson- or North-river, and about Lake Ontario. b. March. v. v. From thirty to forty feet high; petioles and young branches yellow.

6. P. foliis subrotundo-ovatis acutis inæqualiter sinuato- grandidentagrandi-dentatis glabris, junioribus villosis, petiolis superne compressis. - Mich. fl. amer. 2. p. 243.

In Canada. h. April. v. v. From forty to fifty feet high.

7. P. foliis subrotundo-ovatis deltoideis acuminatis subcordatis inæqualiter serratis glabris basi glandulosis, petiolis compressis, ramis junioribus angulatis.—Willd. sp. pl. 4 p. 803.

lævigata.

P. canadensis. Mich. arb. 3. p. 298. t. 11.

In high rocky situations: Canada to Virginia, and about the Western lakes. h. March. v.v. From seventy to eighty feet high. In Virginia it is called Cotton

angulata.

8. P. foliis ovato-deltoideis acuminatis obtuse uncinatodentatis glabris, junioribus amplissimis cordatis, ramis alato-angulosis. - Willd. sp. pl. 4. p. 805.

P. heterophylla. Du Roi hartk. 2. p. 150.

P. basamifera. Mill. dict. n. 5. Icon. Mich. arb. 3. p. 302. t. 12.

In morasses, on the banks of rivers: Virginia to Florida, and on the Mississippi. h. April. v. v. About eighty feet high; leaves very large; branches brittle. It is known by the name of Mississippi Cotton Tree.

9. P. foliis subrotundo-ovatis sinu parvo cordatis subauricu- heterophylla. latis obtusis uncinato-dentatis, junioribus tomentosis. Willd. sp. pl. 4. p. 806.

Icon. Mich. arb. 3. p. 290. t. 9. Duham. arb. ed. nov. 2. t. 51.

In swamps: New York to Carolina, and on the western rivers. 17. May. v. v. About seventy or eighty feet high. The leaves are on their base, properly speak. ing, more auriculated than cordated.

#### 693. MYRICA. Gen. pl. 1510.

Gale.

1. M. foliis cuneato-lanceolatis apice serratis obtusis, amentis masculis imbricatis, squamis acuminatis ciliatis, fructibus squamoso-capitatis. - Willd. sp. pl. 4. p. 745. Icon. Fl. dan. 327.

In boggy grounds in Canada, and about lakes on high mountains; plentifully on the Broad mountains, Pensylvania. h. May. v. v. A low shrub, like all

the following, of an agreeable sweet scent.

cerifera.

2. M. foliis cuneato-lanceolatis apice rariter serratis acutis. amentis masculis laxis, squamis acutis, fructibus globosis minoribus.—Willd. sp. pl. 4. p. 745.

Icon. Catesb. car. 1. t. 69. Pluk. alm. t. 48. f. 9. β. M. foliis lineari-lanceolatis. Mich. fl. amer. 2. p. 228.

pumila.

In shady dry woods: Virginia to Carolina. β. In Carolina and Florida. h. May, June. v. v. A shrub sometimes more than twelve feet high. 'The berries of this and the following species produce a white vegetable wax, which the inhabitants manufacture into candles equal to those made of bees-wax.

caroliniensis.

3. M. foliis cuneato-oblongis grosse dentatis, amentis masculis laxis, squamis acutis, baccis globosis majoribus. -Willd. sp. pl. 4. p. 746.

M. cerifera β. Mich. fl. amer. 2. p. 223.

Icon. Catesb. car. 1. p. 13.

In wet places about rivers and swamps: New England to Florida. b. May. v.v. Not above three or four feet high.

pensylvanica.

4. M. foliis oblongis utrinque acutiusculis integerrimis aut apice rariter subserratis margine revolutis, amentis masculis laxis, squamis acutis, baccis globosis majusculis .- Lam. encycl. 2. p. 592.

Icon. Duham. arb. ed. nov. 2. t. 55.

In shady rocky situations: New Jersey and Pensylvania. May. v. v. Not above three feet high. It generally is confounded with the preceding, but is a very distinct species.

### 694. BETULA. Gen. pl. 1419.

populifolia.

1. B. foliis deltoidibus longe acuminatis inæqualiter serratis glaberrimis, strobilorum squamis lobis lateralibus subrotundis, petiolis glabris. Willd. sp. pl. 4, p. 463.

B. acuminata. Ehrh. beitr. 6. p. 98.

B. lenta. Du Roi harbk. 1. p. 92. Wangh. amer. p. 45. t. 29. f.33.

Icon. Mich. arb. 2. p. 139. t. 2. Willd. arb. t. 2. f. 5.

In barren rocky woods and old fields: Canada to Pensylvania. L. June, July. v.v. From thirty to forty feet high. It is known by the name of White Birch or Old Field Birch.

2. B. foliis ovatis acutis serratis, petiolis pubescentibus pedunculo brevioribus, strobilorum squamis lobis lateralibus rotundatis. Willd. sp. pl. 4. p. 463.

B. lutea. Mich. arb. 2. p 152.

Icon. Mich. l. c. t. 5. Willd. arb. t. 2. f. 2.

In low grounds: province of Maine, Hudson's river. b. May, June. v. v. From seventy to eighty feet high; generally called Yellow Birch.

3. B. foliis rhombeo-ovatis duplicato-serratis acutis subtus pubescentibus, basi integris, amentis femineis ovatis, squamis villosis, laciniis linearibus æqualibus. - Willd. sp. pl. 4. p. 464.

B. lanulosa. Mich. fl. amer. 2. p. 181.

B. rubra. Mich. arb. 2. p. 142.

Icon. Mich. l. c. t. 3. Willd arb. t. 2. f. 6.

On the banks of rivers: New Jersey to Carolina. b. May. v. v. About seventy feet high when full grown; the wood very fine. It is generally called Red Birch.

4. B. foliis ovatis acuminatis duplicato-serratis, venis subtus hirsutis, petiolo glabro, amentis femineis pedunculatis nutantibus, squamis lobis lateralibus brevibus suborbiculatis. - Willd. sp. pl. 4. p. 464.

B. papyrifera. Mich. fl. amer. 2. p. 180.

Icon. Mich. arb. 2. p. 133. t 1. Willd. arb. t. 2. f. 1. In the forests of Canada to a great northern latitude, and as far south as the Hudson's river. h. May, June. v. v. A large tree, highly useful to the natives for constructing their large portable canoes, from which circumstance it is known by the name of Canoe Birch.

5. B. foliis cordato-ovatis argute serratis acuminatis, nervis subtus petiolisque pilosis, strobilorum squamis glabris, lobis obtusis æqualibus elevato-venosis. - Willd. sp. pl. 4. 464.

B. carpinifolia. Ehrh. beitr. 6. p. 99.

excelsa.

nigra.

papyracea.

lenta.

B. nigra. Du Roi harbk. 1. p. 93. Wangh. amer. t. 15. f. 34.

Icon. Mich. arb. 2. p. 145. t. 4.

In Canada and throughout the Allegany mountains, to their termination in Georgia. h. May, June. v.v. This elegant and large tree is the most interesting of this genus, on account of the excellence of its wood. It is known by the name of Mountain Mahogany, Black Birch, Cherry Birch, and Sweet Birch. This last appellation it has from the sweet scent the branchlets give when bruised.

pumila.

6. B. ramis pubescentibus impunctatis, foliis orbiculatoobovatis petiolatis subtus dense pubescentibus, amentis femineis cylindricis.—Willd. sp. pl. 4. p. 467.

B. nana. Kalmitin. 2. p. 263.

Icon. Jacq. hort. vind. t. 122. Du Roi harbk. 1. t. 3.

Wangh. amer. t. 29. f. 61.

In bogs of Canada, and on high mountains of New York and Pensylvania. h. May, June. v. v. A low shrub, not above two or three feet high.

glandulosa.

7. B. ramis glanduloso-punctatis glabris, foliis obovatis serratis basi integerrimis glabris subsessilibus, amentis femineis oblongis, squamis semitrifidis, seminibus orbiculatis angusto-marginatis.—Willd. sp. pl. 4. p. 466.

In Canada, about Hudson's Bay, and on the borders of lakes on the high mountains of New Jersey and Pensylvania. b. May. v. v. A handsome little shrub,

not above two feet high.

Mana.

8. B. humillima, glaberrima; foliis orbiculatis crenatis subtus reticulato-venosis, amenti squamis profunde 3-partitis, laciniis oblongis, seminibus orbiculatis subapteris.—Willd. sp. pl. 4. p. 465.

Icon. Amoen. acad. 1. t. 1. Fl. dan. 91. Pall. fl. ross. 1.

t. 40. Amman. act. 9. t. 14.

In sphagnous swamps about Hudson's Bay and other parts of Canada. 12. April, May. v. s. in Herb. Lambert.

# 695. ALNUS. Willd. sp. pl. 4. p. 334.

Betula. Gen. pl. 1419.

glutinosa.

 A. foliis subrotundo-cuneatis obtusis subretusis glutinosis, axiilis venarum subtus villosis. Willd. sp. pl. 4. p. 334. Betula Alnus. Sp. pl. 1394.

Icon. Engl. bot. 1508. Læs. pruss. t. 1.

On the banks of rivers, in the interior of Canada, and on the north-west coast. 1/2. April. v.v. A large tree, known every where under the name of Alder.

 A. foliis oblongis acutis basi rotundatis duplicato-serratis, petiolis venisque subtus pilosis, axillis venarum nudis, stipulis ovato-oblongis.

A. undulata. Willd. sp. pl. 4. p. 336.

Betula Alnus crispa. Mich. fl. amer. 2. p. 181.

Betula crispa. Ait. kew. 3. p. 339.

In Canada and on high mountains, in sphagnous swamps, of Pensylvania. 12. April. v. v. A shrub not above three or four feet high.

3. A. foliis obovatis acuminatis venis et axillis venarum subtus pilosis, stipuiis ellipticis obtusis. Willd. sp. pl. 4. p. 336.

Betula serrulata. Ait. kew. 3. p. 338.

Betula rugosa. Ehrh. beitr. 3. p. 21.

Icon. Abbot. insect. 2. t. 92. Wangh. amer.

In swamps and on river sides; common every where.

h. March. v. v. A shrub from six to ten feet high, growing in close thickets.

### 696. CARPINUS. Gen. pl. 1449.

 C. foliis oblongo-ovatis acuminatis inæqualiter serratis, strobilorum squamis tripartitis, lacinia intermedia obliqua ovato-lanceolata uno latere dentata.—Willd. sp. pl. 4. p. 468.

C. virginiana. Mich. arb. 3. t. 8.

In shady woods and hedges: Canada to Florida. A. May. v.v. This species of Hornbeam resembles the European very much, and its wood is of the same qualities: it rises to about fifteen feet high.

### 697. OSTRYA. Mich. gen. 223.

1. O. foliis ovato-oblongis basi subcordatis acuminatis inæqualiter serratis, strobilis oblongo-ovatis erectis, geminis acutis.—Willd. sp. pl., 4. p. 469.

Carpinus virginiana. Ait. kew. 3. p. 363.

Icon. Abbot. insect. 2. p. 151. t. 75. Pluk. alm. t. 156.

In shady woods: New England to Carolina. h. May.

crispa.

serrulata.

americana.

virginica.

v. v. A small tree, of exceeding hard and heavy wood, from which it is generally known under the name of Iron-wood; in some parts they call it Lever-wood. I observed a variety in Pensylvania, of which the younger branches were covered with glandulous hairs. It is rather singular to observe that the plate in Mich. arb. 3. t. 7. intended for the present plant, represents Ostrya vulgaris with hanging cones, which is never the case in the American species.

### 698. FAGUS. Gen. pl. 1448.

sylvatica.

1. F. foliis ovatis acuminatis leviter dentatis margine ciliatis basi acutis, nucibus ovato-triquetris obtusis cum mucrone.—Willd. sp. pl. 4. p. 459. Mich. arb. 2. p. 170.

Icon. Mich. l. c. t. 8.

In extensive forests: New Hampshire to Georgia. 2. May. v. v. This species of beech forms those extensive and beautiful woods generally known by the name of Beech-woods, and always gives the indication of a fertile soil. It is distinguished by the name of White Beech from the following.

ferruginea.

2. F. foliis ovato-oblongis acuminatis subtus pubescentibus grosse dentatis basi obtusis subcordato-inæqualibus, nucibus acute ovato-triquetris acutissimis.—Willd. sp. pl. 4. p. 460.

Icon. Mich. arb. 2. p. 174. t. 9. Abbot, insect. 2. t. 75. In rich level lands, at the foot of mountains: Canada to New England. b. May, June. v. v. It is distinguished by the inhabitants by the name of Red Beech, the wood being of a darker colour than the preceding. Both species are highly useful timber trees.

### 699. CASTANEA. Tournef. inst. t. 352.

vesca: americana. 1. C. foliis lanceolatis acuminatis mucronato-serratis utrinque glabris.—Willd. sp. pl. 4. p. 460.

Fagus Castanea. Hort. cliff. 447. Icon. Mich. arb. 2. p. 156. t. 6.

In the mountainous parts: New England to Carolina. h. May, June. v.v. The American Chesnut differs so little from the European, that no specific distinction can be drawn. It is one of the largest and

most useful trees of the forests, the wood being extremely durable, and in high esteem for posts and rails to construct fences. The nuts are very delicious.

2. C. foliis oblongis acutis mucronato-serratis subtus albotomentosis .- Willd. sp. pl. 4. p. 461.

Fagus pumila. Sp. pl. 1418. Icon. Mich. arb. 2. p. 166. t. 7. Wangh. amer. t. 19. f. 44. Abbot. insect. t. 57. Catesb. car. 1. t. 9.

Pluk. alm. t. 156. f. 2.

In dry barren and sandy fields and woods: New Jersey to Georgia. b. May, June. v. v. This small tree, or rather shrub, grows to the height of thirty feet and upwards in the southern regions, but to the north it seldom exceeds seven or eight feet. The fruit is very sweet and agreeable to eat, and is generally known by the name of Chinquapin.

## 700. QUERCUS. Gen. pl. 1446.

\* Fructificatio biennis; fructibus subsessilibus; foliis setaceomucronatis. (in specie 1. muticis.)

#### + Foliis integerrimis.

1. Q. foliis deciduis lineari-lanceolatis utrinque attenuatis integerrimis glabris mucronatis, cupula scutellata, glande subrotunda.—Willd. sp. pl. 4. p. 423.

Q. Phellos sylvatica. Mich. querc. n. 7.

Icon. Mich. l. c. t. 12. Mich. arb. 2. t. 12. Catesb. car. 1. t. 16. Abbot. insect . 2. t. 91. Wangh. amer. t. 5. f. 11. Pluk. amalth. t. 441. f. 7.

B. Q. foliis brevioribus. Catesb. car. 1. t. 22. Wangh.

amer, t. 5. f. 12.

In low swampy forests, near the sea-coast: New Jersey to Florida. b. May. v.v. The Willow Oak grows to the height of about fifty or sixty feet. The young leaves are dentated. The variety  $\beta$ , is of low straggling growth.

2. Q. foliis perennantibus coriaceis lanceolatis integerrimis glabris basi attenuatis, apice acutis mucronatis, cupula scutellata, glande subrotunda.-Willd. sp. pl. 4. p 424.

Q. Phellos maritima. Mich. querc. t. 13. f. 1.

On the sea-coast of Virginia and Carolina. June. v.v. A low shrubby species, from three to eight feet high.

pumila.

Phellos.

humilis.

maritima.

sericea.

3. Q. foliis deciduis lanceolato-oblongis integerrimis subundatis basi attenuatis obtusis, apice dilatatis acutis subtus sericeis, cupula scutellata, glande subglobosa.—Willd. sp. pl. 4. p. 424.

Q. Phellos pumila. Mich. querc. t. 13. f. 1. & 2.

- Q. Phellos sericea. Ait. kew. 3. p. 354. Abbot. insect. 2.
- Q. pumila. Mich. arb. 2. p. 84. t. 15. Walt. fl. car. 234. Near the sea-coast: Carolina to Florida. h. May. v.v. The Running Oah is perhaps the smallest of all the species, scarcely ever exceeding two feet in height.

myrtifolia.

- 4. Q. foliis perennantibus coriaceis oblongis integerrimis glabris utrinque acutis supra nitidis margine revolutis.

   Willd. sp. pl. 4. p. 424.
  - In Carolina. Willdenow. 7. +. Leaves resemble those of Myrtus communis with large leaves; the fruit

is not known.

virens.

5. Q. foliis perennantibus coriaceis oblongo-ellipticis integerrimis margine revolutis basi obtusis apice acutis muticis subtus stellatim pubescentibus, fructibus pedunculatis, cupula turbinata, squamis abbreviatis, glande oblonga — Willd, sp. pl. 4. p. 425.

Q. Phellos β. Sp. pl. 1412.

Q. sempervirens. Walt. fl. car. 234.

Icon. Mich. querc. t. 10. & 11. Mich. arb. t. 11. Catesb. car. 1. t. 16.

Near the sea coast: Virginia to Florida and Mississippi. It. May. v. v. The Live Oak grows to the height of forty or fifty feet, spreading its branches, when in open places, extremely wide: it yields the finest and most durable ship-timber of any species known; for which reason it is considered one of the most valuable trees in America.

cinerea.

6. Q. foliis perennantibus coriaceis lanceolato-oblongis integerrimis margine revolutis basi attenuatis apice obtusiusculis mucronatis subtus stellatim tomentosis, fructibus sessilibus, cupula scutellata, glande subglobosa.
—Willd. sp. pl. 4. p. 425.

Q. Phellos β. Ait. kew. 3. p. 354.

Q. humilis. Walt. fl. car. 234.

Icon. Mich. querc. n. 8. t. 14. Mich. arb. 2. p. 80. t. 14.

In dry barren soil and pine-forests: Virginia to Georgia. b. May, June. v. v. The Upland Willow Oak is very variable in size, sometimes not above four feet, at others nearly twenty feet high. The younger Michaux considers Q. nana of Willdenow to be only a variety of the present species; which I very much doubt.

Q. foliis deciduis oblongis utrinque acutis mucronatis integerrimis nitidis subtus pubescentibus, cupula scutellata: squamis lato-ovatis, glande subglobosa.

Willd. sp. pl. 4. p. 428.

imbricaria.

Icon. Mich. querc. n. 9. t. 15. & 16. Mich. arb. 2.

p. 78. t. 13.

On the banks of rivers, within the Allegany mountains, and in the western countries thereof. 5. May, June. v. v. The Shingle Oak rises to about forty or fifty feet. The younger Michaux considers the wood of this species of little value.

laurifolia.

Q. foliis deciduis obovato-lanceolatis acutis basi attenuatis integerrimis utrinque glabris, cupula scutellata: squamis lanceolatis, glande subovata.—Willd. sp. pl. 4. p. 427.

Icon. Mich. querc. n. 10. t. 17.

β. Q. foliis apice obtusis. Mich. querc. t. 18.

obtusa.

In South Carolina and Georgia. b. May. v. v. The Laurel Oak, or as it is sometimes called SwampWillow Oak, is about fifty or sixty feet high: its wood, according to the elder Michaux, is very valuable, and almost preferable to that of Q. virens. For what reason the younger Michaux does not mention this species, I cannot tell, unless he considers it only a variety of the preceding; which most certainly is not the case,

++ Foliis dentatis aut breviter lobatis.

 Q. foliis subrotundo-ovatis subcordatis utrinque glabris remote spinoso-dentatis, cupula hemisphærica: squamis laxis, glande ovata acuta.—Willd. sp. pl. 4. p. 431.

agrifolia.

Icon. Pluk. phytogr. t. 196. f. 3?

On the north-west coast, about Noetka Sound. Nec. b. +.

Q. foliis longe petiolatis ovato-lanceolatis oblongisve in- heterophylla.
tegris vel inæqualiter grandidentatis, cupula hemisphærica, glande subglobosa.—Mich. arb. 2. p. 87.
 Icon. Mich. l. c. t. 16.

On the banks of the Delaware, Pensylvania. 12. May. v. v. Of this singular species there is but one indivi-

dual known, which grows on the plantation of the Messrs. Bartrams near Philadelphia. It probably is only a hybrid plant on that account, and cannot with propriety be considered a genuine species: but the younger Michaux having given a good figure of it, I insert it here on that account only.

aquatica.

11. Q. foliis obovato-cuneiformibus glabris integerrimis apice obsolete trilobis, lobo intermedio majore, cupula hemisphærica, glande subglobosa.-Willd. sp. pl. 4. p. 441.

Q. nigra. Sp. pl. 1413.

Q. uliginosa. Wangh. amer. t. 6. f. 18.

Icon. Mich. querc. n. 11. t. 19. t. 20. f. 1. 3. 4. 5. &

t. 21. Mich. arb. 2. p. 89. t. 17.

In swamps: Maryland to Florida. h. May. v. v. The Water Oak is about forty feet high when full grown; its wood is but little valued. Its leaves vary, according to soil and age, ad infinitum. There is scarcely one tree found having leaves like the other, and the same tree is almost as variable in its different branches.

ca.

hemisphæri- 12. Q. foliis perennantibus oblongo-lanceolatis indivisis trilobis sinuatisque, lobis mucronatis, utrinque glabris. Willd. sp. pl. 4. p. 443. Bartr. itin. 320.

Icon. Mich. querc. t. 20. f. 2.

In Georgia and Florida. b. May. v. v. s. is probably nothing more than a young plant of Q. aquatica, which is so very apt to vary in its foliage.

nana.

13. Q. foliis cuneiformibus glabris apice trilobis basi subsinuatis, lobis divaricatis mucronatis intermedio majore, axillis venarum subtus pubescentibus, cupula scutellata, glande ovato-subglobosa.-Willd. sp. pl. 4. p. 443.

Q. aquatica elongata. Ait. kew. 3. p. 357.

Icon. Abbot. insect. 2. t. 59.

In pine-barrens of South Carolina. h. May. v. v. s. fr. A low-growing species, always keeping distinct from Q. aqualica.

triloba.

14. Q. foliis oblongis cuneiformibus basi acutis, apice subtrilobis, lobis æqualibus mucronatis, intermedio longiore, subtus tomentosis, cupula scutellata, glande depresso-globosa - Willd. sp. pl. 4. p. 443.

Q. cuneata. Wangh. amer. p. 78. t. 5. f. 14.

Icon. Mich. querc. n. 14. t. 26. Abbot. insect. 1. t. 50? In pine-barrens, near the sea-coast: New Jersey to Georgia. h. May. v. v. The Downy Black Oak is from twenty to forty feet high, according to Michaux, of very rapid growth, and extremely well calculated for inclosing of lands.

15. Q. foliis coriaceis cuneiformibus basi subcordatis, apice dilatatis retuso-subtrilobis, junioribus mucronatis, supra glabris, subtus rubiginoso-pulverulentis, cupula turbinata: squamis obtusis scariosis, glande breviovata.—Willd. sp. pl. 4, p. 442.

Q. nigra β. Sp. pl. 1413.

Q. ferruginea. Mich. arb. 2. p. 92.

Icon. Mich. querc. n. 12. t. 22. 23. Mich. arb. t. 18. Catesb. car. 1. t. 19. Wangh. amer. t. 5. f. 13. Abbot. insect. t. 58.

In barren sandy or gravelly woods: New Jersey to Florida. 12. May. v. v. The Barren Oak or Black Jack of the Virginians is of low growth, especially in the more northern states: it bears very abundantly and furnishes a fine mast for hogs: the wood is small, but excellent for fuel.

16. Q. foliis obovato-oblongis levissime sinuatis subtus pubescentibus, lobis oblongis obtusis obsolete denticulatis setaceo-mucronatis, cupula scutellata, glande depresso-globosa.—Willd. sp. pl. 4. p. 444.

Q. tinctoria angulosa. Mich. querc. n. 13. t. 24.

Q. discolor. Willd. nov. act. soc. nat. scrut. berol. 3. p. 399.

Q. velutina. Lam. encycl. 1. p. 173

In all large woods, particularly in the mountainous parts:

New England to Georgia. 1. May. v. v. The

Black Oak, or Quercitron, is one of the largest trees of
the American forest, and highly valuable on account of
its timber as well as its bark, which is so very superior
in tanning to any other species of oak.

17. Q. foliis oblongis pinnatifido-sinuatis subtus pubescentibus, lobis oblongis dentatis setaceo-mucronatis, cupula turbinata, glande ovata.—Willd. sp. pl. 4. p. 444.

Q. tinctoria sinuosa. Mich. querc. n. 13. t. 25.

Icon. Abbot. insect. 2. p. 111. & 56. Pluk. alm. t. 54.

f. 5.

In large forests: Pensylvania to Carolina. h. May. v. v. Resembles the preceding, and likewise Q. coccinea. The young expanding leaves are covered with

nigra.

tinctoria.

discolor.

a white down on both sides, which is not the case with either Q. rubra or Q. coccinea. Whether the figure of Q. tinctoria Mich. arb. 2. t. 22. belongs to this or the preceding species, I have not been able to decide.

## ††† Foliis profunde sinuatis lobatisque.

coccinea.

18. Q. foliis longe petiolatis oblongis profunde sinuatis glabris, lobis divaricatis dentatis acutis setaceo-mucronatis, cupula turbinata insigniter squamosa, glande breviovata.—Willd. sp. pl. 4. p. 446.

Icon. Mich. querc. n. 18. t. 31. 32. Mich. arb. 2. p. 116.

t. 23. Wangh. amer. t. 4. f. 9.

In fertile woods: New England to Georgia. 7. May. v. v. The Scarlet Oak is a very large tree, and changes its leaves in autumn to a bright red, which give the woods a very picturesque appearance.

ambigua.

19. Q. foliis sinuatis glabris basi acutis, sinubus subacutis, cupula subscutellata, glande turgide ovata.—*Mich.* arb. 2. p. 120.

Icon. Mich. l. c. t. 24.

On Hudson's Bay and in Nova Scotia. Michaux. 7. May. +. This is an intermediate species, between the preceding and following one, and probably only a hybrid plant. Michaux calls it Gray Oak.

Tubra.

20. Q. foliis longe petiolatis oblongis glabris obtuse sinuatis, lobis acutiusculis dentatis setaceo-mucronatis, cupula scutellata sublævi, glande subovata turgida.—Willd. sp. pl. 4. p. 445.

Icon. Mich. querc. n. 20, t. 35, 36, Mich. arb. 2, p. 126, t. 26. Wangh, amer. t. 3, f. 7, Pluk, alm. t. 54, f. 4.

Du Roi harbk, 2. t. 5. f. 2.

In fertile forests: Canada to Pensylvania, and in the Allegany mountains. 1/2. May. v. v. This large and fine timber tree is exclusively known by the name of Red Oak, which name is likewise applied to Q. tinctoria, coccinea, falcata, palustris, phellos, ambigua, and aquatica, in several parts of America.

Catesbæi.

21. Q. foliis brevissime petiolatis basi cuneatis oblongis profunde sinuatis glabris, lobis tribus quinisve divaricatis dentatis acutis setaceo-mucronatis, cupula turbinata ampla: squamis obtusis marginalibus introflexis, glande subglobosa.—Willd. sp. pl. 4. p. 446.

Icon. Mich. querc. n. 17. t. 29. 30. Mich. arb. 2. p. 101.

t. 20. Catesb. car. 1. t. 23.

- In pine-barrens: Carolina and Georgia. 17. May. v.v. The Barren Scrut Oak is of shrubby growth, not above fifteen feet high, and occurs in the most sterile soil of those countries in great abundance.
- 22. Q. foliis longe petiolatis basi obtusis subtus tomentosis trilobis sinuatisve, lobis subfalcatis setaceo-mucronatis, terminali elongato, cupula crateriformi, glande globosa.—Mich. fl. amer. 2. p. 199.

Q. elongata. Willd. sp. pl. 4. p. 444.

Icon. Mich. querc. n. 16. t. 28. Mich. arb. 2. p. 104. t. 21.

- In sandy soil, near the sea-coast: New Jersey to Georgia. 12. May. v. v. A very large tree, commonly called Spanish Oak. In the southern states it is known by the name of Red Oak.
- 23. Q. foliis longe petiolatis oblongis profunde sinuatis glabris, axillis venarum subtus villosis, lobis divaricatis dentatis acutis setaceo-mucronatis, cupula scutellata lævi, glande subglobosa.—Willd. sp. pl. 4. p. 446.

Icon. Mich. querc. n. 19. t. 33. 34. Mich. arb. 2. p. 123. t. 25. Du Roi harbh. 2. t. 5. f. 4. Wangh. amer. t. 5.

f. 10.

- In low swampy woods: New England to Pensylvania, and in Illinois. 1. May. v. v. The Swamp Spanish Oak or Pin Oak is a large tree; leaves rather small and handsomely divided; the acorns small, and generally in great abundance.
- 24. Q. foliis longe petiolatis obovato-cuneiformibus tri-quinquelobisve margine integerrimis subtus cinereo-tomentosis, lobis setaceo-mucronatis, cupula subturbinata, glande subglobosa.—Mich. fl. amer. 2. p. 199.

Q. ilicifolia. Willd. sp. pl. 4. p. 447. Wangh. amer. 79.

t. 6. f. 17.

Icon. Mich. querc. n. 15. t. 27. Mich. arb. 2. p. 96.

t. 19. Abbot. insect. 2. t. 79?

In dry barren fields and on the mountains: New Jersey to Virginia. 12. May. v. v. This shrub, about four or six feet high, covers large tracts of ground wherever it occurs, called Oak-barrens: it is known by the name of Bear Oak, Black Scrub Oak, and Dwarf Red Oak.

falcata.

palustris.

Banisteri.

\*\* Fructificatio annua; fructibus pedunculatis; foliis muticis.

#### + Foliis lobatis.

- obtusiloba.
- 25. Q. foliis oblongis sinuatis basi cuneatis subtus pubescentibus, lobis obtusis superioribus dilatatis bilobis, cupula hemisphærica, glande ovali.—Mich. fl. amer. 2.

Q. stellata. Willd. sp. pl. 4. p. 452. Wangh. amer. 78.

t. 6. f. 15.

Icon. Mich. querc. n. 1. t. 1. Mich. arb. 2. t. 4.

In most forests: Canada to Florida. h. May. v. v. The Upland White Oak or Iron Oak is a spreading tree about fifty or sixty feet high; its timber is of great value in ship-building.

macrocarpa. 26. Q. foliis subtus tomentosis profunde lyratim sinuatolobatis, lobis obtusis repandis, superioribus dilatatis, cupula craterata; squamis superioribus setosis, glande turgide ovata .-- Willd. sp. pl. 4. p. 453.

Icon. Mich. querc. n. 2. t. 2. & 3. Mich. arb. 2. t. 3.

- Within the mountains, on dry slate or lime-stone hills: Kentucky, Tennassee, Illinois, Mississippi, and Mish. May. v. v. A large tree, called Overcup White Oak by the inhabitants; the fruit is the largest of the American species; the wood very excellent.
- olivæformis. 27. Q. foliis oblongis glabris subtus glaucis profunde inæqualiter sinuato-pinnatifidis, fructu elliptico-ovato, cupula profunde craterata superne crinita, glande ellipticoovali. - Mich. arb. 2. p. 32.

Icon. Mich. arb. 2. t. 2.

On the banks of Hudson's river and the western parts of New York. Michaux. In Pensylvania and Virginia, on iron-ore hills. Ph. h. May. v. v. The Mossy-cup Oak is a large tree; the foliage handsome, and somewhat resembling the preceding species.

lyrata.

28. Q. foliis brevissime petiolatis glabris lyrato-sinuatis summitate dilatatis, lobis oblongis acutis superioribus angulato-truncatis, cupula depresso-globosa tuberculoso-muricata glande globosa subtecta.—Willd. sp. pl. 4. p. 453. Walt. fl. car. 235.

Icon. Mich. querc. n. 3. t. 4. Mich. arb. 2. p. 42. t. 5. In swamps: Carolina to Florida, and on the Mississippi. b. May. v. s. This oak is from eight to fifteen feet high, and known under the names Over-cup Oak, Swamp-post Oak, and Water White Oak. The fruit is almost entirely covered with the cupula or calyx.

29. Q. foliis oblongis pinnatifido-sinuatis subtus pubescentibus, lobis lineari-lanceolatis obtusis integerrimis basi attenuatis, fructibus pedunculatis, cupula subcraterata tuberculosa, basi plana, glande ovata. - Willd. sp. pl. 4. p. 449.

Icon. Mich. querc. n. 4. t. 5. Mich. arb. 2. p. 13. t. 1. Du Roi harbk. 2. t. 5. f. 5. Wangh. amer. t. 3. f. 6.

Catesb. car. 1. t. 21. f. 2.

B. Q. foliis levissime lobatis utrinque viridibus. Mich. l. c.

t. 5. f. 2.

In tertile forests: New England to Carolina. β. Pensylvania and Carolina. b. May. v. v. The White Oak is one of the most abundant and useful of this genus in America; it grows in the middle states to an immense size.

## ++ Foliis integris, dentatis.

30. Q. foliis longe petiolatis obovatis acutis subtus pubescentibus grosse dentatis, dentibus subæqualibus dilatatis apice callosis, cupula craterata basi attenuata, glande ovata.-Willd sp. pl. 4. p. 439.

Q. Prinus palustris. Mich. fl. amer. 2. p. 196.

Icon. Mich. querc. n. 5. t. 6. Mich. arb. 2. t. 7. Du Roi harbk. 2. t. 6. f. 3. Wangh. amer. t. 4. f. 8.

Catesb. car. 1. t. 18. Pluk. alm. t. 54. f. 3.

In low shady woods and on the banks of rivers: Pensylvania to Florida. h. May. v. v. This large and useful tree is known by the name of Chesnut White Oak, Swamp Chesnut Oak, and, to the south, White Oak. The fruit is large, and of a sweet taste.

\$1. Q. foliis brevi-petiolatis oblongo-obovatis subtus albotomentosis grosse dentatis basi integerrimis, dentibus inæqualibus dilatatis acutiusculis apice callosis, fructibus geminis longe pedunculatis, pedunculo in setam terminante, cupula hemisphærica, glande oblongoovata. - Willd. sp. pl. 4. p. 440.

Q. Prinus tomentosa. Mich. querc. n. 5. t. 9. f. 2.

Q. Prinus discolor. Mich. arb. 2. p. 46. t. 6.

In low wet woods: Pensylvania to Carolina. v. v. The Swamp White Oak grows to a very large tree; the acorn, as of most of the chesnut oaks, is sweet.

alba.

repanda.

Prinus.

bicolor.

montana.

32. Q. foliis modice petiolatis lato-obovatis oblongis subtus albo-tomentosis supra nitidis grosse dentatis basi obtusis inæqualibus, dentibus subæqualibus obtusissimis brevibus, fructibus geminis brevi-pedunculatis, cupula hemisphærica, squamis tuberculatis rugosis, glande ovata.—Willd. sp. pl. 4. p. 440.

Q. Prinus monticola. Mich. fl. amer. 2. p. 196.

Icon. Mich. querc. n. 5, t. 7. Mich. arb. 2, t. 8. Abbot. insect. 2, t. 82.

In rocky situations on the mountains: New England to Carolina. A. May. v. v. The Rock Chesnut Oak rises to about sixty feet; its timber is in high value, and its bark tans extremely well.

Castanea.

33. Q. foliis longe petiolatis oblongo-lanceolatis basi obtusis acuminatis subtus tomentosis grosse dentatis, dentibus subæqualibus dilatatis acutis apice callosis, cupula hemisphærica, glande ovato-subglobosa.—Willd. sp. pl. 4. p. 441.

Q. Prinus acuminata. Mich. fl. amer. 2. p. 196.

Icon. Mich. querc. n. 5. t. 8. Mich. arb. 2. p. 61. t. 9. In the Allegany mountains and on the banks of the Delaware. §. May. v. v. The Yellow Ouh is a beautiful and large tree; the acorns are eatable.

Chinquapin.

34. Q. foliis brevi-petiolatis obovatis basi acutis grosse dentatis subtus glaucis, dentibus subæqualibus dilatatis apice callosis, cupula hemisphærica, glande ovata.

Q. Prinus Chinquapin. Mich. arb. 2. p. 65.

Q. prinoides. Willd. sp. pl. 4. p. 440.

Icon. Mich. querc. n. 5. t. 9. f. 1. Mich. arb. 2. t. 10. bona.

On dry mountain lands: Pensylvania to Carolina. 1. May. v. v. The Chinquapin or Dwarf Chesnut Oak is a low-growing shrub, not exceeding three or four feet in height; it is highly ornamental when in full bloom.

# 701. CORYLUS. Gen. pl. 1450.

americana.

1. C. foliis subrotundis cordatis acuminatis, calycibus fructus subrotundo-campanulatis nuce subglobosa majoribus, limbo dilatato dentato-serrato.—Willd. sp. pl. 4. p. 471.

Icon. Wangh. amer. t. 29. f. 63.

In low shady woods: Canada to Florida. h. March, April. v. v. The Hazel Nut or Wild Filbert is a shrub from four to eight feet high; the nuts very fine.

2. C. foliis oblongo-ovatis acuminatis, stipulis lineari-lanceolatis, calycibus fructus campanulato-tubulosis nuce majoribus bipartitis, laciniis inciso-dentatis. Willd. sp. pl. 4 p. 471.

Icon. Willd. arb. t. 1. f. 2.

In the mountains: Canada to Carolina.  $hat{the points}$ . April. v. v. This species is not above four or five feet high.

#### 702. LIQUIDAMBAR. Gen. pl. 1452.

1. L. foliis palmatis, lobis acuminatis, serratis, sinubus baseos venarum villosis.—Willd. sp. pl. 4. p. 475.

Icon. Mich. arb. 3. p. 194. t. 4.

In low woods, on fertile soil: New England to Florida, and in all the western countries. 12. May. v.v. The Sweet gum Tree is sometimes found of an immense size, particularly in the southern states; its wood is of an exquisite hard texture and fine grain, and furniture made of it has a very handsome appearance.

#### 703. COMPTONIA. Gen. pl. 1764.

C. foliis longo-linearibus alternatim crenato-pinnatifidis. asplenifolia.
 Willd. sp. pl. 4. p. 320.

Liquidambar peregrinum. Syst. veg. 860.

Liquidambar asplenifolium. Sp. pl. 1418.

Icon. Pluk. alm. t. 100. f. 6.

In sandy, stony, or slaty woods: New England to Virginia. A. March, April. v. v. The Sweet-fern Bush rises to about three or four feet high; the whole of the plant when rubbed has a strong resinous scent.

# 704. PLATANUS. Gen. pl. 1451.

1. P. foliis quinquangularibus obsolete lobatis dentatis, ra- occidentalis. mulis albentibus.—Willd. sp. pl. 4. p. 474.

Icon. Catesb. car, 1. t. 56. Duham. arb. t. 35. Mich. arb. 3. t. 3.

On the banks of rivers: Canada to Florida, and in Louisiana. 12. May. v.v. This tree is known by the name of Button-wood, Water Beech, Sycamore and Plane Tree; in Canada Cotton Tree. It is perhaps the largest tree in North America: on the fertile banks of the Ohio and the Mississippi there are trees measuring from ten to sixteen feet in diameter.

rostrata.

## 705. JUGLANS. Gen. pl. 1446.

\* Amentis masculis simplicibus, polyandris: Walnuts,

nigra.

1. J. foliolis numerosis ovato-lanceolatis serratis subcordatis superne angustatis, subtus petiolisque subpubescentibus, fructibus globosis scabro punctatis, nuce corrugata. — Willd. sp. pl. 4. p. 456.

Icon. Mich. arb. 1. p. 157. t. 1. Jacq. ic. rar. 1. t. 191. Wangh. amer. t. 8. f. 20. Catesb. car. 1. t. 67.

In fertile woods: New England to Florida. h. April, May. v. v. The Black Walnut is, like all the following, a tree of large size, and its nuts are eaten by men and several species of animals. The wood is put to various mechanical and economical uses; for which information I refer to the different authors on forest trees, but particularly to the works of the younger Michaux.

çinerea.

2. J. foliolis numerosis lanceolatis serratis basi rotundatis subtus pubescenti-mollibus, petiolis villosis, fructibus oblongo-ovatis apice mammosis viscidis longe pedunculatis, nuce oblonga acuminata insigniter insculpto-scabrosa.—Willd. sp. pl. 4. p. 456.

J. cathartica. Mich. arb. 1. p. 165.

J. oblonga. Mill. dict. n. 3. Retz. obs. 1. p. 10.

Icon. Mich. arb. 1. t. 2. Jacq. ic. rar. 1. t. 192. Wangh.

amer. t. 9. f. 21.

- Near the sea-coast: Canada to Virginia, and on the Allegany mountains. It. April, May. v. v. It is known under the name of Butter Nut, Oil Nut, and White Walnut. The younger Michaux has altered the adopted name, and substituted one indicating the medicinal use made of it, which certainly would be a very good name if the old one had not been so long established.
- \*\* Amentis masculis compositis, tetrandris. Hickory.

olivæformis.

3. J. foliolis numerosis (13—15) lanceolatis subfalcatis serratis, impari petiolato, fructibus oblongis tetragonis, nuce olivæformi lævi.—W illd. sp. pl. 4. p. 457.

J. angustifolia. Ait kew. 3. p. 361.

J. Pecan. Muhlb. in nov. act. soc. nat. scrut. berol. 3. p. 392.

Icon. Mich. arb. 1. t.3.

On the banks of the Ohio, Mississippi, and other rivers

in Upper Louisiana. In April, May. v. v. It is generally known under the name of *Pecan* or *Illinois Nut*; the fruit is small, with a very thin shell, and a delicious kernel.

4. J. foliolis subnovenis obovato-lanceolatis acuminatis serratis subtus pubescentibus, impari subsessili basi attenuato, fructibus subrotundis 4-carinatis, nuce subglobosa leviter compressa lævi longe mucronata.—Willd. sp. pl. 4. p. 457.

J. mucronata. Mich. fl. amer. 2. p. 192.

J. laciniosa, Mich. arb. 1. p. 199.

Icon. Mich. arb. 1. t. 8.

In fertile valleys of the Allegany mountains. A. April, May. v. v. It is called Thick Shell-bark Hickory, Spring field or Glocester Nut. The nuts are large and fine tasted; the bark is torn lengthways in long loose fragments, as in the following species.

5. J. foliolis subseptenis longe petiolatis oblongo-lanceolatis acuminatis argute serratis, subtus villosis, impari sessili, amentis filiformibus glabris, fructibus depressoglobosis, nuce compressa obliqua.—Mich. fl. amer. 2. p. 193. Sp. pl. 1415.

J. compressa. Willd. sp. pl. 4. p. 458. Muhlb. in nov. act. soc. nat. scrut. berol. 3. p. 390.

J. squamosa. Mich. arb. 1. p. 190.

Icon. Mich. arb. 1. t. 7. Pluk. alm. t. 309. f. 2. Gært. carp. 2. t. 89. sub J. compressa. Catesb. car. 1. t. 38.

In shady fertile forests: New England to Carolina, and throughout the Allegany mountains. 1. April, May. v.v. This useful tree is known by the name of Shell-bark Hickory, Shag-bark and Scaly-bark Hickory, on account of its bark, which is torn in loose fragments like the preceding: its nuts are white, with a thin shell and very sweet and large kernel.

6. J. foliolis subnovenis oblongo-lanceolatis acuminatis leviter serratis subtus pubescentibus scabris, impari subpetiolato, amentis filiformibus longissimis tomentosis, fructibus subglobosis lævibus, pericarpio crassissimo, nuce subsexangulata putamine crassa durissima.—

Mich. fl. amer. 2. p. 192.

J. alba. Willd. sp. pl. 4. p. 457. Icon. Mich. arb. 1. p. 186. t. 6.

In fertile forests: New England to Virginia, and on the Allegany mountains. A. April, May. v. v. This

suleata.

alba.

tomentosa.

is known under the name of Mocker Nut, Whiteheart Hickory or Common Hickory. The wood is excellent for mechanical purposes, and particularly esteemed as fire-wood; but the nuts are very hard, with but little kernel in them.

amara.

7. J. foliolis subnovenis ovato-oblongis acuminatis argute serratis utrinque glabris, impari breviter petiolato, fructibus subglobosis, superne suturis prominulis, nuce lævi subglobosa mucronata, putamine fragili.—Mich. arb. 1. p. 177.

In dry fertile woods: New England to Maryland, and on the mountains. h. May. v. v. This is known by the name of Bitter Nut, White or Swamp Hicko-

ry. The nuts are small, the kernel bitter.

porcina.

8. J. foliolis subseptenis lanceolatis acuminatis serratis utrinque glabris, impari subsessili, fructibus pyriformibus vel globosis, nuce lævi durissima.—Mich. arb. 1. p. 206.

obcordata. — Mich. arb. 1. p. 206. t. 9. f. 3. & 4.

J. obcordata. Willd. sp. pl. 4. p. 458.

ficiformis.

β. J. fructu turbinato, nuce oblonga.—Mich. arb. 1. p. 209. t. 9. f. 1. & 2.

J. glabra. Willd. sp. pl. 4. p. 458.

In dry fertile forests: New England to Virginia. 1/2.

May. v. v. It is known by the name of Pig or Hog Nut, also Broom Hickory. The natives and inhabitants make brooms of it by slitting the very tough wood into narrow slips, which finally form a very good and durable broom. The nuts are very small and extremely hard.

aqualica.

J. foliolis subundenis angusto-lanceolatis acuminatis subserratis sessilibus, impari breviter pedicellato, fructibus pedunculatis ovatis suturis 4. prominulis, nuce subdepressa rubiginosa tenera.—Mich. arb. 1. p. 182.

Icon. Mich. arb. 1. t. 5.

In swamps and rice-fields: South Carolina and Georgia.

1. May. v. s. Michaux calls it Water Bitter-nut Hickory. The fruit is extremely bitter.

myristicæfor- 10. J. foliolis quinis ovato-lanceolatis acuminatis serratis glamis. bris, impari subsessili, fructibus ovalibus rugoso-scabris, nuce ovali brevi-acuminata sulcato-lineata durissima.—Mich. arb. 1. p. 211.

Icon. Mich. arb. 1. t. 10.

In South Carolina. Michaux. 1. +. The Nutmeg Hickory is but little known; the nuts are very hard, and brown with white lines.

#### 706. MORUS. Gen. pl. 1424.

1. M. foliis cordatis ovatis acuminatis trilobisve, æqualiter serratis scabris, subtus pubescentibus, amentis femineis cylindricis.—*Willd. sp. pl.* 4. p. 369.

Icon. Mich. arb. 3. p. 232. t. 10. Wangh. amer. t. 15.

f. 35. Pluk. alm. t. 246. f. 4.

In fertile valleys throughout the middle States. h. June. v.v. The Red Mulberry is a very handsome tree, and the wood useful and very durable.

# III. CONIFERÆ.

707. PINUS. Gen. pl. 1451.

- \* Foliis solitariis, basi distinctis. Abies.
- 1. P. foliis solitariis planis emarginatis integrisve subtus glaucis subpectinatis supra suberectis recurvato-patentibus, conis cylindraceis erectis, bracteolis abbreviatis obovatis longe mucronatis subserrulatis.—Willd. sp. pl. 4. p. 504.

Abies balsamifera. Mich. fl. amer. 2. p. 207.

- Icon. Lambert. monogr. p. 48. t. 31. Mich. arb. 3. t. 14. In Canada, Nova Scotia, New England, and on the Allegany mountains, in high and cold situations. μ. May. v. v. This elegant tree is known by the name of Balsam of Gilead Fir, Fir Balsam, and American Silver Fir. It grows to the height of about forty or fifty feet.
- P. foliis solitariis planis brevioribus emarginatis subtus glaucis subsecundis supra crebris erectis, conis ovatooblongis erectis, bracteolis elongatis reflexis oblongocuneatis emarginatis brevi-mucronatis inciso-denticulatis.
  - On high mountains of Carolina. Fraser. On the Broad-mountains, Pensylvania. Ph. 12. May. v.v.; v.s. in Herb. Lambert. This species, known among the inhabitants by the name of Double-balsam Fir, re-

rubra.

Balsamea.

Fraseri.

sembles the preceding in several respects, but differs at first sight in being a smaller tree, the leaves shorter and more erect, and the cones not one fourth the size. Messrs. Frasers introduced this tree into England a few years ago.

taxifolia.

3. P. foliis solitariis planis subdistichis, conis oblongis, antheris didymis.—Lambert. monogr. p. 51. t. 33.

On the banks of the Columbia. M. Lewis. On the north-west coast. Menzies. 1. v. s. in Herb. Lewis. This elegant and tall tree has some resemblance to the following one, but the leaves are more than twice the length. I have among my specimens two varieties, or probably distinct species, which for want of fructification I cannot decide: one has acute leaves, green on both sides; the other emarginate leaves, glaucous underneath.

canadensis.

 P. foliis solitariis planis denticulatis subdistichis, strobilis ovatis terminalibus vix folio longioribus. Lambert. monogr. p. 50. t. 32.

P. americana. Du Roi harlk. 2. p. 107.

Icon. Lambert. l. c. Mich. arb. 1. p. 137. t. 13. Wangh.

amer. t. 15, f. 36.

In the most northern regions of Canada and on the highest mountains, as far south as Carolina. 1. May. v. v. v. The Hemlock Spruce is a very elegant tree, and grows in some situations to an enormous size; its bark is a fine substitute for oak-bark in tanning.

nigra.

 P. foliis solitariis tetragonis undique sparsis erectis strictis strobilis ovatis, squamis ellipticis margine undulatis apice eroso-denticulatis.—Lambert. monogr. p. 41. t. 27.

P. mariana. Du Roi harbk. 2. p. 107.

P. denticulata. Mich. fl. amer. 2. p. 206.

Icon. Lambert. l. c. Mich. arb. 1. t. 11, Mill. ic. 1.

From the more northern parts of Canada to Carolina, throughout the tracts of high mountains. 1. May. v. v. v. The Black Spruce or Double Spruce is, besides its great mechanical use, the tree of which that wholesome beverage calld Spruce Beer is made.

rubra.

 P. foliis solitariis subulatis, strobilis oblongis obtusis, squamis rotundatis subbilobis margine integris. Lambert. monogr. p. 43. t. 28.

Abies pectinata. Lamarck. encycl. 6. t. 523.

Icon. Lambert. l. c.

In Nova Scotia and about Hudson's Bay. 13. May. v. s. This species of Spruce Fir is nearly related to the pre-It is, as yet, a very scarce tree in the garceding. dens.

7. P. foliis solitariis tetragonis incurvis, strobilis subcylindricis laxis, squamis obovatis integerrimis. Lambert. monogr. p. 39. t. 26.

P. laxa. Ehrh. beitr. 3. p. 24.

P. canadensis. Du Roi hartk. 2. t. 124.

Icon. Lambert. l. c. Mich. arb. 1. t. 12. Wangh. a-

mer. 5. t. 1. f. 2.

In similar situations with P. nigra. h. May. v. v. The White Spruce is of lower growth than the Black Spruce, its wood not so good as that, and its branches unfit for making spruce beer.

\*\* Foliis pluribus, basi vaginatis.

8. P. foliis brevibus geminis, strobilis recurvis oblongo-conicis longitudine foliorum, aculeis squamarum subulatis rectis.—Lambert. monogr. p. 18. t. 13. P. virginiana. Du Roi harbh. 2. p. 35.

Icon. Lambert. l. c. Mich. arb. 1. t. 4.

In dry barren soil: New Jersey to Carolina. b. May. v. v. The Jersey Pine, Pitch or Scrub Pine, is of middle size, straggling growth, and full of resin. Its branches are tougher than any other pine I know, and might be used for several useful purposes if its wood was not so apt to an early decay. A. B. Lambert, Esq. in his magnificent Monograph on this interesting and useful genus, made similar observations, which the younger Michaux in his Arbres forestiers, p. 60. has taken up as a point of criticism. On this subject Mr. Lambert favoured me with his observations respecting this and some other remarks made by Mr. Michaux, which I think proper here to insert; it is in the following words: "The criticisms made by Mr. Michaux on my 'Description of the genus Pinus' are so inaccurate, that I did not think them worth my notice before, nor should I now, were it not to prevent Mr. Pursh from being misled by them, though I believe he is already well aware of their fallacy; I shall therefore beg of him to insert a few observations on the different subjects to which they respectively belong, if they meet with his approbation and conalla.

inops,

currence. Whether Mr. Michaux has been successful in changing the specific names of the pines, I shall leave to future botanists to decide: but I must correct him in respect to the *specific name* he has added to my own, which certainly does not belong to it." The observation which Mr. Lambert makes in this place is, "Michaux's observations relative to the branches of *P. inops* being not fit for hoops appear to be mere matter of opinion, as well as mine, without experience."

resinosa.

 P. foliis elongatis geminatis, vaginis elongatis, strobilis ovato-conicis basi rotundatis subsolitariis folio dimidio brevioribus, squamis medio dilatatis inermibus.—Lambert. monogr. p. 20. t. 14.

P. rubra. Mich. arb. p. 45. t. 1.

In Canada and the western parts of New York. P. v.v. This tree, called by Aiton Pitch Pine, is generally known in its native country by the name of Norway Pine; sometimes, particularly among the Canadian French, Red Pine. It grows in close forests, is very tall, and its bark is remarkably smooth and red; the timber is very heavy, for which reason it is rejected for masts, though its size and shape are apparently very recommendable for that purpose. Mr. Lambert in his note, quoted above, observes, "In confirmation of what I have said relative to the timber of P. resinosa, Mr. Michaux mentions the exportation of it being much diminished, as it has been found to contain too much sap; but he still thinks, from some planks he has seen, it is without foundation."

Banksiana.

 P. foliis brevibus geminatis rigidis divaricatis obliquis, strobilis recurvis tortis, squamis inermibus.—Lambert. monogr. p. 7. t. 3.

P. rupestris. Mich. arb. 1. p. 49. t. 2.

P. hudsonia. Lam. encycl. 5. p. 339.

P. sylvestris δ. divaricata. Ait. kew. 3. p. 366.

In cold barren and rocky situations: Nova Scotia, Hudson's Bay, parts of Canada and Province of Maine. 1. April, May. v. v. The Scrub Pine, or, as Michaux calls it, the Gray Pine, is a small straggling tree, which in some instances, when growing among the barren rocks, does not rise above five or eight feet high, though it will grow to a considerable size when, by accident or culture, it is brought on good soil. Mr. Lambert observes in his note, "that the trees of this

species now in England exude a great quantity of resin from their branches."

11. P. foliis elongatis binis ternatisque tenuibus canaliculatis, strobilis ovato-conicis subsolitariis, squamarum aculeis incurvis.—Lambert. monogr. p. 22. t. 15.

P. mitis. Mich. arb. 1. p. 52. t 3. In most pine-forests: New England to Georgia. May. v. v. The Yellow Pine is the most in use for building of houses as well as shipping. Mr. Lambert's note on this species says, "The height and size of P. variabilis I have taken from Wangenheim, who saw it growing in America, and see no reason for doubting his authority."

12. P. foliis ternis, vaginis abbreviatis, amentis masculis erecto-incumbentibus, strobilis ovatis sparsis vel aggregatis, squamarum spinis reflexis.—Lambert. monogr. p. 25. t. 18. 19.

Icon. Lambert. l. c. Mich. arb. 1. p. 89. t. 8.

On the plains: New England to Virginia. The common Black or Pitch Pine grows in favourable situations to a very large tree; it is found promiscuously in dry soil and very wet low grounds. Mr. Lambert says that his observations on this species were taken from Wangenheim.

13. P. foliis elongatis ternis, amentis masculis erecto-incumbentibus, strobilis ovatis, squamarum aculeis rectis tenuissimis. - Mich. fl. amer. 2. p. 205.

P. Tæda alopecuroides. Ait. kew. 3. t. 368.

Icon. Mich. arb. 1. p. 86. t. 7. Lambert. monogr. t. 19.

On the edges of ponds and swamps: New Jersey to Carolina. b. May. v. v. This and the preceding species ripen their seeds only after the second year. I strongly suspect them to be only varieties; and if it had not been introduced as a species by a very good figure of Michaux's, I should have only given it as such.

14. P. foliis geminis brevibus acutis, strobilis ovato-conicis, aculeis squamarum elongatis subulatis incurvis, inferioribus reflexis.—Lambert. monogr. p. 91.

Icon. Lambert. monogr. t. 16. f. c. Mich. arb. 1. p. 61. t. 5.

On high mountains: on the Grandfather and Table

variabilis.

rigida.

serotina,

pungens.

mountains, Carolina. 1. v. s. in Herb. Lambert. The cones are large and armed with strong spines. The cone figured t. 16. f. c. in Lambert. monogr. is genuine, but the branch belongs to a separate species.

Tæda,

15. P. foliis elongatis ternis, vaginis elongatis, strobilis oblongo-conicis deflexis folio brevioribus, spinis inflexis. — Lambert. monogr. p. 23. t. 16. 17.

Icon. Lambert. l. c. Mich. arb. 1. p. 97. t. 9.

In barren and sandy situations: Virginia to Florida. b. April, May. v. v. The Loblolly or Old-field Pine is found in large tracts in the southern states: all the woods seem to be seeded with it; for when any piece of cleared land is neglected for any space of time it will be covered with those pines. It is difficult and in some cases almost impracticable to recover those lands run over with young pines, as the ground appears to have lost all fertile properties for any other vegetable than those trees. The account Mr. Michaux gives of this tree is very correct and instructive; as also is the plate of Mr. Lambert; but unfortunately the latter, considering P. tæda Wangh. amer. 41. a genuine synonym, although it evidently belongs to P. rigida or serotina, has inadvertently been led into some errors in his description.

palustris.

 P. foliis ternis longissimis, stipulis pinnatifidis ramentaceis persistentibus, strobilis subcylindraceis muricatis.
 —Lambert. monogr. p. 27. f. 20.

P. australis. Mich. arb. 1. p. 64. t. 6.

Icon. Lambert. et Mich l. c. Abbot. insect. 1. t. 42.

In the forests, near the sea-coast: North Carolina to Florida. 1. May. v.v. The Long-leaved, Yellow, Pitch, or Broom Pine is a beautiful as well as very useful tree. Mr. Lambert's remarks respecting the quality of the wood he has taken from Wangenheim, whom he considers sufficient authority; but on the observations of Michaux respecting the male flowers, he mentions in his note, "I can only suppose Mr. Michaux has never seen my plate with the male flowers, or he never would have made such an observation about them."

Strobus.

P. foliis quinis gracilibus, vaginis brevissimis, strobilis pendulis cylindraceis folio longioribus, squamis laxis.
 —Willd. sp. pl. 4. p. 501. Lambert. monogr. p. 31.
 t. 22.

Icon. Lambert. l. c. Mich. arb. 1. p. 103. t. 10. Wangh.

amer. 1. t. 1. f. 1.

In fertile soil, on the side of hills: Canada to Virginia. b. May. v. v. The White or Weymouth Pine is the largest and most useful of all the species above mentioned; in the State of Vermont they grow to an enormous size; it is the best timber in America for masts.

## \*\*\* Foliis fasciculatis. Larix.

18. P. foliis fasciculatis deciduis, strobilis oblongis, squamarum marginibus inflexis, bracteolis panduræformibus acumine attenuato. Lambert. monogr. p. 55. t. 36.

Ait. kew. 3. p. 369.

In low cedar swamps: Canada to New Jersey. h. April, May. v.v. The Black Larch, Tamarack, or Hack-matack of the Americans, is a beautiful tree, resembling the European Larch in appearance, as well as in the excellent qualities of its wood and bark.

19. P. foliis fasciculatis deciduis, strobilis subrotundis pauci- microcarpa. floris, squamis reflexis, bracteolis ellipticis obtuse acuminatis. Lambert. monogr. p. 56. t. 37.

P. pendula. Willd. arb. 215.

P. laricina. Du Roi harbk. 2. p. 83.

Larix americana. Mich. fl. amer. 2. p. 203.

Icon. Lambert. l. c. Mich. arb. 3. t. 4. Wangh. amer.

t. 16. f. 37.

About Hudson's Bay and on high mountains of New-York and Pensylvania. b. May. v. v. The Red Larch resembles the preceding, and both have been considered as one species by Michaux; but they are specifically and constantly different; I never saw them both growing in the same place, or even near one an-Mr. Lambert likewise observes that they have always kept distinct, when raised from seed.

# 708. CUPRESSUS. Gen. pl. 1458.

1. C. foliis distichis planis deciduis, floribus masculis aphyllo-paniculatis, strobilis subglobosis. - Willd. sp. pl. 4. p. 512.

Icon. Mich. arl. 3. p. 4. t. 1. Catesb. car. 1. t. 11. Comm. hort. 1. t. 59. Pluk. alm. t. 85. f. 8.

In extensive swamps and on the banks of large rivers from Indian-river Delaware to Florida, and on the Mispendula.

disticha.

sissippi. It is May. v. v. The Bald or Deciduous Cypress is one of the largest trees of the New Continent. The extensive use made of its wood, and other particulars respecting this interesting tree, are fully elucidated in the excellent work of the younger Michaux, who paid particular attention to the use and properties of the different American forest trees.

thyoides.

2. C. ramulis compressis, foliis quadrifariam imbricatis ovatis basi tuberculatis, strobilis globulosis.—Willd. sp. pl. 4. p. 512.

Icon. Mich. arb. 3. p. 20. t. 2. Wangh. amer. t. 2. f. 4.

Pluk. mant. t. 345. f. 1.

In deep swamps: New England to Carolina. 1/2. April, May. v. v. The White Cedar, so well treated upon by Michaux, is the principal tree, composing what is called Cedar-swamps, throughout the middle and southern States.

## 709. THUYA. Gen. pl. 1457.

occidentalis.

 T. ramulis ancipitibus, foliis quadrifariam imbricatis ovato-rhombeis adpressis nudis tuberculatis, strobilis obovatis, squamis interioribus truncatis, infra apicem gibbosis. Willd. sp. pl. 4. p. 508.

Icon. Mich. arb. 3. p. 29. t 3. Wangh. amer. t. 2. f. 3. From Canada to the mountains of Virginia and Carolina.

From Canada to the mountains of Virginia and Carolina, ħ. May. v. v. The American Arbor Vitæ is rather scarce in the southern States, and only found on the steep banks of mountain torrents. The branches are extremely tough.

# 710. JUNIPERUS. Gen. pl. 1552.

communis.

1. J. foliis ternis patentibus mucronatis bacca longioribus. Willd. sp. pl. 4. p. 853.

α. J. ramis erectis.β. J. ramis depressis.

- erecta. depressa.
- α. About rocks, near the falls of rivers, in Canada and the western part of New York. β. in New York, and particularly in the province of Maine, in rocky or gravelly situations. γ. May. v. v. The Common Juniper may probably have been originally brought from Europe; but the variety β., or probably a distinct species, seems to be really an original native; it does not grow above a foot or two high, and one single

root will cover sometimes a space of from fifteen to twenty feet in diameter.

2. J. foliis ternis basi adnatis, junioribus imbricatis, senioribus patulis. Willd. sp. pl. 4. p. 863.

virginiana,

Icon. Mich. arb. 3. p. 42. t. 5. Wangh. amer. t. 2. f. 51. In dry and rocky woods and fields: Province of Maine b. May. v. v. The Red Cedar, so to Georgia. useful and durable a wood, for whose history I refer to Michaux's work so often quoted, is as yet in great abundance in most parts of that country; but its extermination is going on so rapidly, that future inhabitants will be very much at a loss, and will feel the want of it when it is too late.

3. J. foliis oppositis obtusis medio glandulosis, quadrifariam imbricatis, tenellis acutis oppositis, caule fruticoso.

Sabina.

excelsa.

procumbens.

β. Willd. sp. pl. 4. p. 852.

In the clefts of rocks: Canada. Michaux. B. Within the Rocky-mountains. M. Lewis. b. v. s. in Herb. Lewis. Not above six inches high.

4. J. foliis oppositis obtusiusculis, medio glandulosis, quadrifariam imbricatis, tenellis acutis ternis patulis, caule arboreo. Willd. sp. pl. 4. p. 852.

J. Sabina varietas. Pall. ross. 2. p. 15.

- On the banks of the waters of the Rocky-mountains. M. Lewis. 12. May. v. s. in Herb. Lewis. A lofty elegant tree. Specimens of Pallas in the Herbarium of A. B. Lambert, Esq. seem to be the same with those collected by Mr. Lewis.
- 5. J. foliis omnibus quadrifariam imbricatis, junioribus ova- barbadensis. tis, senioribus acutis. Willd. sp. pl. 4. p. 851. Icon. Pluk. alm. t. 197. f. 4.

On the coast of Florida. Michaux. b. v.v. in Hortis.

# 711. TAXUS. Gen. pl. 1553.

1. T. foliis linearibus distichis margine revolutis, receptacu- canadensis. lis masculis globosis. Willd. sp. pl. 4. p. 856.

T. baccata minor. Mich. fl. amer. 2. p. 245.

In shady, rocky places: Canada. Michaux. banks of the Antietum, Maryland. Ph. On the March, April. v. v. The plants I observed on the Antietum cover a great part of the rocky banks of that river. Under the shade of other trees it does not rise above two or three feet.

# 712. ZAMIA. Gen. pl. 1700.

integrifolia.

1. Z. frondibus pinnatis, foliolis lanceolatis rotundato-obtusis basi attenuatis latere exteriore ad apicem serrulatis, stipite glabro subtetragono. Willd. sp. pl. 4. p. 847. Z. pumila. Sp. pl. 1659. excl. synon.

Icon. Jacq. ic. 3. t. 635.

In East Florida. 1. +. This species of palm is only found in Florida, as I have made all inquiries to find it in Georgia, but without success.

# XX. CRYPTOGAMIA.

## I. GONOPTERIDES.

713. EQUISETUM. Recept. peltata, pentagona, spicata, Indusium corniculatum. Stam. 4. Styl. O. Sem. 1.

#### II. STACHYOPTERIDES.

714. LYCOPODIUM. Capsulæ reniformes, 1-loculares, 2-valves, polyspermæ. Sem. minutissima, pulveriformia.

715. BERNHARDIA. Capsulæ 3-coccæ, 3-loculares: loculis superne dehiscentibus, semibiyalvibus.

716. OPHIOGLOSSUM. Capsulæ nudæ, uniloculares, in spicam articulatam disticham connatæ, 2-valves, transverse debiscentes.

717. BOTRYCHIUM. Capsulæ subglobosæ, rachi adunatæ in racemum compositum dispositæ, 1-loculares: valvulis binis postice connexis transverse dehiscentibus.

# III. SCHISMATOPTERIDES.

718. HYDROGLOSSUM. Spicæ unilaterales. Capsulæ biseriales, latere interiore a basi ad verticem dehiscentes. Indusium squamiforme quamlibet capsulam obtegens.

719. SCHIZÆA. Spicæ unilaterales, flabellatæ, aggregatæ. Capsulæ vertice radiatim striatæ, subturbinatæ, poro oblongo latere hiantes. Indusium continuum

e margine inflexo spicæ formatum.

720. OSMUNDA. *Capsulæ* subglobosæ, pedicellatæ, striatæ, semibivalves, paniculatæ. *Indusium* nullum.

#### IV. FILICES.

- 721. ACROSTICHUM. Capsulæ sparsæ, discum totum inferiorem frondis vel ejus partem occupantes. Indusium nullum.
- 722. POLYPODIUM. Sori subrotundi, sparsi. Indusia nulla.
- 723. WOODSIA. Sori subrotundi, sparsi. Indusium calyciforme, apertum, margine crinitum, includens Capsulas pedicellatas.
- 724. ASPIDIUM. Sori subrotundi, sparsi. Indusium umbilicatum vel uno latere dehiscens.
- 725. ONOCLEA. Capsulæ partem frondis inferiorem dense tegentes. Indusia squamiformia, in formam baccæ connata non dehiscentia.
- 726. STRUTHIOPTERIS. Capsulæ partem frondis inferiorem dense tegentes. Indusia squamiformia, marginalia, interius debiscentia.
- 727. ASPLENIUM. Sori lineares, transversales, sparsi. Indusia e venis lateralibus orta, costam versus dehiscentia.
- 728. SCOLOPENDRIUM. Sori lineares, transversales, sparsi. Indusium duplex, ad utrumque latus sori situm.
- 729. PTERIS. Sori continui, lineares, marginales. Indusium e margine frondis, inflexum, interius dehiscens.
- 730. VITTARIA. Sori lineares, longitudinales, continui vel in margine vel in disco frondis. Indusium duplex, ad utrumque latus sori.
- 731. BLECHNUM. Sori lineares, longitudinales, continui, ad utrumque latus costæ frondis. Indusium superficiarium, interius dehiscens.
- 732. WOODWARDIA. Sori oblongi, distincti, recti, ad utrumque latus costæ frondis. Indusia superficiaria, fornicata, interius dehiscentia.
- 733. ADIANTUM. Sori oblongi vel subrotundi, Indusiis membranaceis, e margine ortis, interius dehiscentibus inserti.
- 734. CHEILANTHES. Sori punctiformes, discreti, marginales, tecti Indusio squamiformi marginali interius dehiscente.
- 735. DICKSONIA. Sori punctiformes, marginales, subrotundi, distincti. Indusium duplex, alternum superficiarium, exterius dehiscens, alterum marginale interius dehiscens.

736. HYMENOPHYLLUM. Sorus marginalis, receptaculo cylindraceo insertus. Indusium bivalve, sorum includens.

#### V. HYDROPTERIDES.

737. ISOETES. Capsula membranacea, non dehiscens, frondis basi immersa, 1-locularis. Semina angulata, receptaculis pluribus filiformibus inserta.

738. SALVINIA. Indusia imbricata, connata, capsulam unilocularem mentientia. Semina receptaculo cen-

trali inserta.

739. AZOLLA. Capsula unilocularis, radicalis, globosa, polysperma.

# I. GONOPTERIDES.

## 713. EQUISETUM. Gen. pl. 1614.

 E. caulibus sterilibus simpliciter ramosis, ramis scabriusculis tetragonis, fructificationibus simplicibus, vaginis cylindraceis inciso-dentatis, dentibus acutis. Willd. enum. 1065. Willd. sp. pl. 5. p. 1.

Icon. Schkuhr filic. t. 167.

In low and sandy fields: Pensylvania and Virginia. 4. April, May. v. v.

2. E. caulibus sterilibus fructificantibusque duplicato-ramosis, ramis scabriusculis deflexis tetragonis, ramulis subtriquetris. Willd. enum. 1065. Willd. sp. pl. 5. p. 3.

Icon. Schkuhr filic. t. 166. Fl. dan. 1182.

In low shady woods: New York to Virginia. 4. April —June. v. v.

3. E. caulibus subramosis, ramis subquaternis tetragonis glabris, spica cylindracea terminali.—Willd. sp. pl. 5. p. 4.

In swamps: New York to Virginia. 4. May. v. v. Resembles E. limosum.

4. E. caulibus simpliciter ramosis glabris sulcatis, ramosi pentagonis apice spiciferis. Willd. enum. 1065. Willd. sp. pl. 5. p. 5.

arvense.

sylvaticum.

uliginosum.

palustre.

Icon. Schkuhr filic. t. 168, 169. Fl. dan. 1183. On the banks of rivers and in deep swamps: Virginia. 24. May, June. v. v.

scirpoides.

5. E. caulibus simplicibus adscendentibus glabris filiformibus apice spiciferis, vaginis 3-dentatis sphacelatis, dentibus aristatis apice caducis. Willd. sp. pl. 5. p. 7. Mich. fl. amer. 2. p. 281.

E. reptans. Swartz. in litt.

In shady woods, round the mossy feet of trees: Canada and on the Green mountains, Vermont. 4. July. A small species.

hyemale.

6. E. caulibus simplicibus erectis scaberrimis apice spiciferis, vaginis discoloribus basi apiceque sphacelatis, dentibus aristatis omnino caducis. Willd. sp. pl. 5. p. 8.

Icon. Schkuhr filic. t. 172.

On the banks of rivers and in swamps: Canada to Vir-2. July, Aug. v. v.

# II. STACHYOPTERIDES.

# 714. LYCOPODIUM. Gen. pl. 1615.

\* Spicis pedunculatis.

carolinianum.

1. L. caule repente, foliis subdistichis patulis lanceolatis superficialibus adpressis, pedunculo erecto solitario elongato monostachyo, bracteis sublanceolatis. - Willd. sp. pl. 5. p. 14.

Icon. Dill. musc. t. 62. f. 5.

In low meadows and woods: Pensylvania to Carolina. 24. July. v. v.

clavatum.

2. L. caule repente, ramis adscendentibus, foliis sparsis enervibus incurvato-setigeris, spicis geminatis cylindricis pedunculatis, squamis ovatis acuminatis eroso-denticulatis. Willd. sp. pl. 5. p. 16.

Icon. Schkuhr filic. t. 162. Fl. dan. 126. Dill. musc. t. 58. f. 1. Pluk. alm. t. 47. f. 8.

In dry pine woods: Canada to Pensylvania. 4. July. v. v. It sometimes has only one spike.

complanatum. 3. L. caule erecto, ramis alternis dichotomis, foliis bifariis connatis apice patentibus, superficialibus solitariis adpressis, pedunculis quadrifidis tetrastachyis, spicis teretibus cylindricis. Willd. sp. pl. 5. p. 19.

Icon. Fl. dan. 78. Dill. musc. t. 59. f. 3. In shady woods, on rocky soil: Canada to Virginia. 4. July. v.v.

4. L. caulibus erectis, ramis alternis dichotomis subcom- tristachyum. pressis, foliis lanceolatis acutis quadrifariis adpressis, pedunculis solitariis elongatis tristachyis, spicis teretibus, squamis subrotundis acuminatis.

On high mountains in Virginia, near the Sweet-springs. 4. July. v. v. This species is intermediate between

the preceding and following one.

5. L. caule erecto, ramis alternis dichotomis, foliis lanceolatis acutis quadrifariis adpressis convexis, pedunculis solitariis monostachyis, spicis teretibus, squamis subcordatis acuminatis.— Willd. sp. pl. 5. p. 20.

L. alpinum. Mich. fl. amer. 2. p. 282.

Icon. Dill. musc. t. 58. f. 2?

In Canada. Michaux. 21. July. +.

\*\* Spicis sessilibus; foliis caulem circumobsidentibus.

6. L. caule erecto, ramis alternis confertis dichotomis pa- dendroideum. tentibus, foliis sparsis sexfariis lineari-lanceolatis patulis, spicis solitariis terminalibus sessilibus. Willd. sp. pl. 5. p. 21.

L. obscurum. Sp. pl. 1566.

Icon. Schkuhr filic. t. 164. Dill. musc. t. 64. f. 12.

In dry shady woods: Canada to Carolina. 21. July. v. v. This and some other species are known by the name of Ground Pine, and made use of for ornamenting rooms and chimney-pieces, it forming, when properly tied up, beautiful festoons.

7. L. caule repente, ramis adscendentibus basi bis bipartitis, ramulis simplicibus, foliis quinquefariis linearilanceolatis mucronatis apice serrulatis patentibus, ad incrementa annua contractis, spicis solitariis sessilibus terminalibus. Willd. sp. pl. 5. p. 23.

Icon. Schkuhr filic. 162. Fl. dan. 127. Dill. musc. t. 63.

In shady woods: Canada to Pensylvania. 4. July. v.v.

8. L. caule subramoso repente, ramis simplicibus solitariis erectis apice monostachyis, foliis linearibus sparsis acutis integerrimis supra curvis, spica sessili foliosa. Willd. sp. pl. 5. p. 25.

Icon. Schhuhr filie. 160. Fl. dan. 336. Dill. musc.

t. 61. f. 7.

sabinæfolium.

annotinum.

inundatum.

apodum.

- In cedar swamps and overflowed woods: Canada to New York. 4. July. v. v.
- alopecuroides. 9. L. caule repente subramoso, ramis subsimplicibus elongatis adscendentibus apice monostachyis, foliis linearisubulatis basi ciliato-dentatis patulis, spica sessili foliosa. Willd. sp. pl. 5. p. 26,

Icon. Schkuhr filic. t. 160. Dill. musc. t. 62. f. 6.
In sphagnous swamps: New York to Carolina. 4.
July. v.v. It is known by the name of Walking
Fern.

selaginoides. 10. L. caule repente, ramis adscendentibus simplicibus, foliis sparsis lanceolatis patulis ciliato-denticulatis, spicis terminalibus solitariis foliosis sessilibus. Willd. sp. pl. 5. p. 28.

Icon. Schhuhr filic. t. 165. Fl. dan. 70. Dill. musc. t. 68. f. 1.

- In mossy woods: Canada and New Hampshire. 24.

  July. v. v. The American plant is smaller than the European.
- rupestre. 11. L. caule repente ramoso, ramis subdivisis adscendentibus, foliis sparsis imbricatis lineari-lanceolatis ciliatis apice piliferis, spicis solitariis sessilibus terminalibus.

  Willd. sp. pl. 5. p. 30.

Icon. Schkuhr filic. t. 165. Dill. musc. t. 63. f. 11.
On rocks: Canada to Virginia, and on the Carolina mountains. 4. July. v.v. A small species.

\*\*\* Spicis sessilibus; foliis distichis.

albidulum.

12. L. foliis bifariis ovatis acutis denticulatis, superficialibus alternis distichis adpressis, spicis terminalibus elongatis sessilibus tetragonis. Willd. sp. pl. 5. p. 37.

In moist shady places: Pensylvania. 24. Aug. v.v. A very small, moss-like species, very much resembling the following.

13. L. foliis bifariis subrotundo-ovatis acutis planis denticulatis cum superficialibus acuminatis alternantibus, caule ramoso basi radicante, spicis terminalibus sessilibus subsolitariis. Willd. sp. pl. 5. p. 38.

Icon. Dill. musc. t. 64. f. 3. In shady woods: Pensylvania to Florida. 24. July. v. v.

\*\*\*\* Capsulis axillaribus.

lucidulum. 14. L. foliis octofariis lineari-lanceolatis denticulatis acutis patenti-reflexis, caule adscendente bifido. Willd. sp. pl. 5. p. 51.

L. reflexum. Schkuhr filic. t. 159.

Icon. Dill. musc. t. 56. f. 2.

In low sphagnous grounds and on the banks of shady rivulets: Canada to Carolina. 4. July. v.v. Resembles L. Selago; it frequently bears bulbs instead of capsules.

#### 715. BERNHARDIA. Willd. act. acad. erford. 1802. p. 11.

1. B. caule nudo dichotomo ramisque triquetris.— *Willd.* sp. pl. 3. p. 56.

dichotoma.

Hoffmannia aphylla. Wild. in Roem, et Usteri bot. mag. 6. p. 17.

Psilotum triquetrum. Swartz synop. filic. 187. Psilotum floridanum. Mich. fl. amer. 2. p. 281.

Lycopodium nudum. Sp. pl. 1564.

Icon. Schkuhr filic. t. 165. b. Dill. musc. t. 64. f. 4. On the cliffs of rocks, near the sea-coast, in Florida. 21. June. v. s.

#### 716. OPHIOGLOSSUM. Gen. pl. 1621.

1. O. spica caulina, fronde ovata obtusa, arcte reticulata. vulgatum. Willd. sp. pl. 5. p. 58.

Icon. Schkuhr filic. t. 153. Fl. dan. 147.

In low grassy open places, in woods and on the sides of hills: New York to Pensylvania. 4. May. v. v.

2. O. spica caulina, fronde subcordato-ovata obtusa, radice bulbosum. bulbosa. Willd. sp. pl. 5. p. 60.

O. crotalophoroides. Walt. fl. car. 256.

In low sandy grounds: New Jersey to Carolina. 4. May. v. v.

# 717. BOTRYCHIUM. Swartz. synop. filic. 8.

1. B. scape nudo, frondibus glabris radicalibus tripartito- fumarioides. bipinnatis, foliolis lunatis crenatis, spicis pinnatis.— Willd. sp. pl. 5. p. 63.

B. lunarioides. Swartz. synop. filic. 172.

Botrypus lunarioides. Mich. fl. amer. 2. p. 274.

Osmunda biternata. Lam. encycl. 4. p. 608.

Icon. Schkuhr filic. t. 157.

In pastures and open woods: New York to Carolina. 4.

June. v. v.

2. B. scapo inferne unifrondoso, fronde subbiternata, foliolis oblongo-lanceolatis serrulatis basi dilatatis inæqualiter cordatis, spicis bipinnatis.—Willd. sp. pl. 5. p. 63.

obliquum.

In open woods: Pensylvania and Virginia. 4. June, July. v. v. Resembles the preceding very much, and is probably only a variety.

dissectum.

3. B. scapo inferne unifrondoso, fronde tripartito-bipinnatifida, laciniis linearibus bipartitis apice bidentatis. Willd. sp. pl. 5. p. 64.

Icon. Schkuhr filic. t. 158. Pluk. amalth. t. 427. f. 5.
In pastures and open dry woods: New York to Florida.
2. June. v. v.

virginicum.

4. B. hirsutum; scapo medio frondoso, fronde subterna tripartito-bipinnatifida, foliolis inciso-pinnatifidis, laciniis obtusis subtridentatis, spicis bipinnatis divaricatis.—Willd. sp. pl. 5. p. 64.

Botrypus virginicus. Mich. fl. amer. 2. p. 274.

Osmunda virginica. Sp. pl. 1579.

Osmanda multifida. Gmel. nov. com. petrop. 12. t. 11.

Icon. Schkuhr filic, t. 156.

In shady woods, on rich vegetable soil: Canada to Carolina.  $\mathcal{U}$ . June, July. v.v. This is the largest of the species here described; it is known by the name of Rattle Snake Fern, probably from the circumstance of growing near the places where those venomous animals generally are found.

gracile.

 B. glabrum; scapo medio frondoso, fronde tripartitobipinnatifida, laciniis inciso-subpinnatifidis acutis subdentatis, spicis gracilibus pinnatis erectis.

In shady fertile woods: Virginia. 4. June. v. v. This species approaches near to the preceding in its first appearance, but is by far a smaller and more slender plant, besides the other distinctions.

# III. SCHISMATOPTERIDES.

718. HYDROGLOSSUM. Willd. sp. pl. 5. p. 77.

Ophioglossum. Linn.

palmatum.

1. H. caule flexuoso-scandente, frondibus conjugatis cordatis quinquelobo-palmatis, lobis lanceolatis integerrimis obtusis obsolete sinuatis, spicillis terminalibus composite paniculatis oblongo-linearibus.—Willd. sp. pl. 5. p. 84.

CRYPTOGAMIA SCHISMATOPTERIDES. Hydroglossum.

Lygodium palmatum. Swartz. synop. filic. 154. Cteisium paniculatum. Mich. fl. amer. 2. p. 275.

Icon. Schkuhr filic. 140. Willd. act. acad. erford. 1802.

t. 1. f. 2.

In low copses, climbing among small shrubs. 4. July. v. v. This is the most beautiful and singular of all the North American ferns, and is a highly ornamental plant when cultivated in pots.

# 719. SCHIZÆA. Smith act. taur. 5. p. 419.

1. S. fronde simplicissima lineari-compressa, spicis conglomeratis inflexis secundis.

In barren sandy but moist grounds: New Jersey, Burlington county, near a place called Quaker Bridge. 4. Aug. Sept. v. v. This singular little fern is very scarce, and so small that it generally escapes the notice of the botanist, unless accident points it out.

#### 720. OSMUNDA. Gen. pl. 1622.

1. O. frondibus sterilibus pinnatis, pinnis pinnatifidis, la- cinnamomea. ciniis ovato-oblongis obtusis integerrimis, stipite lanato, fructificantibus bipinnatis lanuginosis. - Willd. sp. pl. 5. p. 98.

Icon. Schhuhr filic. t. 146. Moris. hist. 3. s. 14. t. 4.

f. 3.

In low open woods and exsiccated swamps: New England to Florida. 4. June-Aug. v.v. This is a fern of the size and habit of Polypodium Filix mas; the fertile stems are covered with a cinnamon-coloured down.

2. O. frondibus pinnatis ferrugineo-tomentosis, pinnis pin- Claytoniana. natifidis apice coarctato-fructificantibus.-Willd. sp.

pl. 5. p. 96.

In Virginia. Clayton. 4. April. +. This is probably only a variety of the preceding. I have no specimen in my herbarium; but recollect very well that the fructiferous stems of that species very-frequently grow out into leaves, which may have given rise to the formation of the present species.

3. O. frondibus pinnatis glabris, pinnis oppositis pinnatifidis, laciniis oblongis acutiusculis integerrimis, pinnis aliquot intermediis fructificantibus .- Willd. sp. pl. 5. p. 96.

pusilla.

interrupta.

O. basilaris. Sprengel. aul. 3. p. 160.

Icon. Schkuhr filic. t. 144.

In low and swampy grounds: Canada to Virginia, and in the western territories. 4. June, July. v. v. This singular fern is about two feet high.

spectabilis.

4. O. frondibus bipinnatis, pinnulis oblongis obtusiusculis argute serrulatis basi truncatis inæqualibus, omnibus alternis, panicula bipinnata fructificante in apice frondis.—Willd. sp. pl. 5. p. 98.

O. regalis  $\beta$ . Sp. pl. 1521. Mich. fl. amer. 2. p. 273.

Icon. Pluk. alm. t. 184. f. 4.

In mountain swamps: Canada to Carolina. 4. July. v. v. A very elegant species.

## IV. FILICES.

## 721. ACROSTICHUM. Gen. pl. 1625.

aureum.

- 1. A. frondibus pinnatis, pinnis alternis oblongo-lanceolatis integerrimis, basi cuneatis æqualibus, omnibus acuminatis, superioribus fructificantibus. Willd. sp. pl. 5. p. 116.
  - Icon. Schkuhr filic. t. 1. Petiv. fil. t. 8. f. 5. Plum. amer. t. 7. Pluk. alm. t. 288. f. 2.
  - In deep swamps near the sea-coast: Florida. 4. July. v. v. This is the largest of the North American ferns, the leaves being sometimes above five feet long.

# 722. POLYPODIUM. Swartz. synop. filic. 3.

vulgare.

1. P. frondibus profunde pinnatifidis, laciniis lineari-lanceolatis obtusis crenulatis approximatis, superioribus sensim minoribus, soris solitariis, caudice paleaceo. Willd. sp. pl. 5. p. 172.

Icon. Schkuhr filic. t. 11. Plum. fil. t. A.f. 2.

On rocks and old rotten trees: Canada to Carolina. 21.

July. v. v.

virginianum.

- 2. P. frondibus profunde pinnatifidis, laciniis lanceolatis obtusis integerrimis approximatis, superioribus sensim minoribus, soris solitariis, caudice nudo. Willd. sp. pl. 5. p. 174.
  - Icon. Petiv. filic, t. 7. f. 9. Pium. amer. t. 36. filis. t. 77.

incanum.

- On the trunks of trees: Virginia? 4. July. +. Willdenow doubts whether this is really a native of Virginia, and I believe with much propriety, as I likewise never have seen any other species than P. vulgare under the name of P. virginicum.
- 3. P. frondibus profunde pinnatifidis, laciniis alternis linearibus integerrimis obtusis, superioribus sensim minoribus, subtus stipiteque squamulosis, apice fructiferis, soris solitariis. Willd. sp. pl. 5. p. 174.

P. ceteraccinum. Mich. fl. amer. 2. p. 271.

Acrostichum polypodioides. Sp. pl. 1525.

Icon. Schkuhr filic. t. 11. b.

- On rocks and trunks of old trees: Virginia to Florida, Kentucky and Tennassee; on the rocks of the Natural bridge, Virginia, and on the stems of trees in the Dismal-swamp. Ph. July. v. v.
- 4. P. frondibus bipinnatifidis glabriusculis, pinnis duabus hexagonopteinfimis deflexis, laciniis lanceolatis obtusis ciliatis, pinnarum inferiorum inciso-crenatis superiorum integerrimis, infimis adnato-decurrentibus, soris minutis solitariis. Willd. sp. pl. 5. p. 200.

Icon. Pluk. alm. t. 284. f. 2. bona. Schkuhr filic.

In shady moist woods on fertile soil: New York to Carolina. 4. July. v. v. The whole leaf forms a triangle in its circumference; the stem is smooth.

5. P. frondibus bipinnatifidis ciliatis, pinnis oppositis contiguis adnatis, pinnulis subellipticis, stipite paleaceo, soris minutis. Willd. sp. pl. 5. p. 200.

In shady woods: Canada to New York. 4. July. v.v. Resembles the preceding.

O. P. frondibus ternatis bipinnatis rectis rigidulis, laciniis obtusiusculis subintegerrimis, soris marginalibus confluentibus. Willd. sp. pl. 5. p. 210.
 P. Dryopteris. Bolton filic. 53. t. 1.

Nephrodium Dryopteris. Mich. fl. amer. 2. p. 270.

In shady beech-woods: Canada to Pensylvania. 4.

July. v. v. This is a very rare fern in Pensylvania.

I only found it on the western mountains in deep shady beech forests.

-

connectile.

calcareum.

#### 723. WOODSIA. Brown in linn. trans. 11. p. 173.

hyperborea.

1. W. frondibus pinnatis, pinnis tripartitis vel pinnatifidoincisis cuneiformibus obtusis dentatis subtus hirtis,
soris solitariis demum confluentibus.—Brown l. c.
cum icone.

Polypodium hyperboreum. Willd. sp. pl. 5. p. 197. Polypodium arvonicum. Smith fl. brit. 3. p. 1115.

Acrostichum ilvense. Huds. angl. 451. Acrostichum alpinum. Bolton filic. 76. t. 42.

Acrostichum hyperboreum. Liljellad act. holm. 1793.
p. 201. t. 8.

Icon. Schkuhr filic. t. 17. b. Pluk. phytogr. t. 89. f. 5.

Moris. hist. 3. s. 14. t. 3. f. 23.

In the clefts of rocks: Canada and on the high mountains of Pensylvania and Virginia. 4. July. v. v. A small fern growing in large tufts, and covered with long brown chaffy hair.

ilvensis.

2. W. frondibus bipinnatifidis, laciniis oblongis obtusis inferioribus repandis, superioribus integerrimis subtus hirtis, soris submarginalibus demum confluentibus, stipite superne villoso.—Brown l. c.

Polypodium ilvense. Willd. sp. pl. 5. p. 198. Polystichum Marantæ. Roth fl. germ. 3. p. 92.

Acrostichum ilvense. Sp. pl. 1528.

Icon. Schkuhr filic. t. 19. Fl. dan. 391.

On rocks: Canada to Virginia. 4. July. v.v. Resembles the preceding very much; but the leaves are smaller divided and covered with fine woolly hair, not chaffy as in the other.

# 724. ASPIDIUM. Swartz. synop. filic. 3.

Nephrodium. Mich. fl. amer. 2. p. 266.

\* Frondibus ternatis.

cicutarium.

 A. frondibus ternatis, foliolis pinnatifidis, laciniis acuminatis sinuato-pinnatifidis integerrimis, lateralium infima et exteriore lacinia elongata, soris serialibus. Willd. sp. pl. 5. p. 215.

Polypodium cicutarium. Sp. pl. 1549.

Polypodium appendiculatum. Swartz. fl. ind. occid. 3. p. 1677.

Icon. Pluk. alm. t. 289. f. 4. & t. 296. f. 2.
On rocks in the mountains of Virginia. 4. +.

## \*\* Frondilus pinnatis.

2. A. frondibus pinnatis, pinnis lanceolatis falcatis acutis acrostichoides. ciliato-serratis, basi superiore mucronato-auriculatis, inferiore cuneatis, superioribus fructificantibus minoribus, stipite rachique paleaceis, soris solitariis demum Willd. sp. pl. 5. p. 225. confluentibus.

A. auriculatum. Schkuhr filic, 31, t. 30, excl. synon. Nephrodium acrostichoides. Mich. fl. amer. 2. p. 267. On rocks, in shady low places: New England to Carolina. 4. June-Aug. v. v. Resembles N. auricu-

latum.

- \*\*\* Frondibus subbipinnatis; indusiis dimidiatis renifor-
- 3. A. frondibus pinnatis, pinnis lineari-lanceolatis pinnatifidis, laciniis oblongis obtusiusculis subintegerrimis ciliatis, soris marginalibus, stipite lævi. - Willd. sp. pl. 5. p. 248.

noveboracense.

A. thelypterioides. Swartz. synop. filic. 57.

Nephrodium thelypterioides. Mich. fl. amer. 2. p. 267.

Polypodium noveboracense. Sp. pl. 1552.

Icon. Schkuhr filic. t. 46.

On river sides and the banks of ditches and ponds: Canada to Carolina. 4. July. v.v.

4. A. frondibus pinnatis, pinnis lineari-lanceolatis pinnatifi- Thelypteris. dis glabris, laciniis ovatis acutis integerrimis, soris marginalibus contiguis demum confluentibus. Willd. sp. pl. 5. p. 249.

Polypodium Thelypteris. Mant. 505.

Polystichum Thelypteris. Roth fl. germ. 3. p. 77.

Acrostichum Thelypteris. Sp. pl. 1528.

Icon. Schkuhr filic. t. 52. Fl. dan. 760. Engl. bot. 1018.

- In low grassy fields and swamps: Canada to Virginia. 4. July. v.v. It is very seldom found with fructifications; the leaves are smaller than in the preceding.
- 5. A. frondibus lanceolato-ovatis glabris pinnatis, pinnis subcordato-oblongis pinnatifidis, laciniis oblongis obtusis dentato-serratis, stipite paleaceo. - Willd. sp. pl. 5. p. 252.

Polypodium cristatum. Sp. pl. 1551.

Icon. Schhuhr filic. t. 37. Afzel. act. holm. 1787. t. 9.

cristatum;

Callipteris.

β. A. majusculum; pinnis alternis, laciniis oblongis inæqualiter adpresso-serratis, fronde apice fructificante. Polypodium Callipteris. Ehrh. beitr. 3. p. 77.

Polystichum cristatum. Roth germ. 3. p. 84.

lancastriense.

y. A. pinnis suboppositis, laciniis triangulari-ovatis acute serratis, stipite nudo.-Willd. sp. pl. 5. p. 261. Schkuhr filic. t. 41.

In moist rocky situations: New York to Virginia.

July. v. v. Of middle size.

\*\*\*\* Frondilus lipinnatis triplicato-pinnatisve; indusiis dimidiatis reniformibus.

obtusum.

6. A. frondibus bipinnatis, pinnulis oblongis obtusis superioribus coadunatis dentato-crenatis, rachi superne pu-Willd. sp. pl. 5. p. 254. bescente.

Polypodium obtusum. Swartz. synop. filic. 39. Schkuhr

filic. 18.

Icon. Schkuhr filic. t. 21. & 43. b.

In clefts of rocks: Pensylvania and Virginia. 4. July. v. v. A small species, not above four or five inches high.

aculeatum.

7. A. frondibus bipinnatis, pinnulis ovatis subfalcatis acutis mucronato-serratis, basi superiore truncatis, inferiore abbreviato-cuneatis, superioribus fructificantibus, stipite rachique paleaceis. Willd. sp. pl. 5. p. 258.

Polypodium aculeatum. Sp. pl. 1552.

Polystichum aculeatum. Roth fl. germ. 3. p. 79.

Icon. Schkuhr filic. t. 39. & 40. Bolt. filic. t. 56. Pluk.

alm. t. 180. f. 1.

In shady rocky places, on the Green mountains, Vermont. 4. Aug. v. v. The size of No. 5, of a

shining and strong texture.

marginale.

8. A. frondibus bipinnatis, pinnulis oblongis obtusis decurrentibus crenatis, crenis baseos profundioribus, soris marginalibus, stipite paleaceo. Willd. sp. pl. 5.

Polypodium marginale. Sp. pl. 1522.

Nephrodium marginale. Mich. fl. amer. 2. p. 267.

Icon. Schkuhr filic. t. 45. b.

In rocky shady places: Canada to Carolina. 24. July. v. v. Resembles the following.

Filix mas.

9. A. frondibus bipinnatis, pinnulis oblongis obtusis serratis, serraturis muticis, soris costæ mediæ approximatis, stipite rachique paleaceis. Willd. sp. pl. 5. p. 259.

Polypodium Filix mas. Sp. pl. 1551.

Polystichum Filix mas. Roth. fl. germ. 3. p. 82.

Icon. Schkuhr filic. t. 44. Bolt. filic. t. 24. Moris. hist. 3. s. 14. t. 3. f. 6.

β. A. pinnulis eroso-serratis remotioribus.—Schkuhr filic.

erosum.

In shady pine forests: New Jersey to Virginia.  $\beta$ . in Carolina.  $\mathcal{U}$ . July. v. v. From two to three feet high; the leaflets are more obtuse, and more frequently doubly serrated, than in the European plant.

A. frondibus bipinnatis, pinnulis linearibus pinnatifido- intermedium.
incisis, laciniis apice submucronato-serratis, stipite paleaceo. Willd. sp. pl. 5. p. 262.

In Pensylvania. Muhlenberg. 4. +. Resembles the

following in several respects very much.

spinulosum.

 A. frondibus bipinnatis, pinnulis oblongis decurrentibus confluentibus inciso-dentatis, laciniis mucronato-serratis, stipite paleaceo, indusiis glandulosis. Willd. sp. pl. 5. p. 262.

Polypodium spinulosum. Retz. prodr. fl. scand. n. 1295.

Polypodium cristatum. Hoffm. fl. germ. 2. p. 8. Polystichum spinosum. Roth. fl. germ. 3. p. 91.

Icon. Schkuhr filic. t. 48. Fl. dan. 707. Fr. Mill.

icon. t. 2. f. 2. In shady woods, in fertile soil: Pensylvania to Virginia.

4. July. v. v. A large species.

dilatatum.

A. frondibus bipinnatis, pinnulis oblongis distinctis pinnatifido-incisis, laciniis mucronato-serratis, stipite paleaceo, indusiis lævibus. Willd. sp. pl. 5. p. 263.
 Polypodium dilatatum. Hoffm. fl. germ. 2. p. 7.

Polypodium dilatatum. Hoffm. fl. germ. 2. p. 7. Polypodium aristatum. Villars fl. delph. 3. p. 844.

Polypodium cristatum. Huds. angl. 457.

Polystichum multiflorum. Roth. fl. germ. 3. p. 87. Nephrodium cristatum. Mich. fl. amer. 2. p. 269.

Icon. Schkuhr filic. t. 47. Bolt. filic. t. 23. Fr. Mill. ic. t. 2. f. 4. Pluk. alm. t. 181. f. 2.

In shady rocky woods: Pensylvania and Virginia. 21.

July. v.v. Resembles A. Filix femina; it is larger, broader, and more compound in its leaves.

\*\*\*\*\* Frondibus bipinnatis triplicato-pinnatisve; indusiis lateralibus.

13. A. frondibus bipinnatis oblongo-lanceolatis, pinnulis oppositis oblongis obtusis serratis, inferioribus pinnatifi-

bulbiferum.

dis, rachi bulbifera, soris subrotundis. Willd. sp. pl. 5.

Polypodium bulbiferum. Sp. pl. 1553.

Nephrodium bulbiferum. Mich. fl. amer. 2. p. 268.

Icon. Schhuhr filic. t. 57. Corn canad. 5. Moris. hist. 3. s. 14. t. 3. f. 10.

In shady woods, about rocks: Canada to Pensylvania.

2. July. v. v. The leaf is narrow, and produces generally some small bulbs on its midrib.

usplenioides.

14. A. frondibus bipinnatis, pinnulis lineari-lanceolatis inciso-serratis, serraturis bi-s. tridentatis terminalibus acutioribus, soris oblongis lunatis. *Willd. sp. pl.* 5. p. 276.

Nephrodium asplenioides. *Mich. fl. amer.* 2. p. 268. Polypodium pensylvanicum. *Muhlb. in litt.* 

Asplenium Athyrium. Sprengel. anleit. 3. p. 113.

Icon. Schkuhr filic. t. 78.

In shady woods, on the banks of rivulets and ditches: New England to Carolina. 21. July. v.v. A tall species, very much resembling the following in many respects.

Filix femina. 15. A. frondibus bipinnatis, pinnulis oblongo-lanceolatis inciso-serratis, serraturis bi-s. tridentatis acutiusculis, soris oblongis rectis. Willd. sp. pl. 5. p. 276.

A. alpestre. Schkuhr filic p. 58.

Polypodium Filix femina. Sp. pl. 1551. Polypodium molle. Schreb. spicil. 70.

Polypodium dentatum, incisum et trifidum. Hoffm. fl. germ 2 p. 7.

Athyrium molle, trifidum, ovatum et Filix femina. Roth. fl. germ. 3. p. 61—65.

Icon. Schkuhr filic. t. 58, 59, & 60. Pluk, phytogr. t. 180. f. 4. Moris, hist. 3. s. 14. t. 3. f. 8.

In low shady grounds: Canada to Virginia. 4. July v.v.

angustum.

16. A. frondibus bipinnatis, pinnulis lanceolatis inciso-serratis, serraturis subbidentatis, infima superiore elongata, soris oblongis sublunatis. Willd. sp. pl. 5. p. 277.
Nephrodium Filix femina. Mich. fl. amer. 2. p. 208.
In shady low woods: Canada to Pensylvania. 4. July. v. v. Resembles the preceding.

functilobum. 17. A. frondibus bipiunatis, pinnulis decurrentibus ovatooblongis pinnatifidis, laciniis subquadridentatis, soro solitario instructis, rachibus pubescentibus, stipite gla-Willd. sp. pl. 5. p. 279.

Nephrodium punctilobulum. Mich. fl. amer. 2. p. 268.

In shady woods, on the banks of small rivulets: Canada to Virginia. 4. July. v. v. From two to three feet high.

18. A. frondibus bipinnatis, pinnulis decurrentibus ovato- atomarium. oblongis pinnatifidis, laciniis dentatis, soris sparsis. Willd. sp. pl. 5. p. 279.

In Pensylvania. Muhlenberg. 4. +. Not much

above a span high; fructification small.

19. A. frondibus bipinnatis, pinnulis ovatis decurrentibus dentatis, soris solitariis juxta dentes pinnularum. Willd. sp. pl. 5. p. 279.

Nephrodium tenue. Mich. fl. amer. 2. p. 269.

In clefts of rocks: Canada to Virginia. 21. July. v. v. A small species; fructifications large.

20. A. frondibus bipinnatis, pinnulis subtus paleaceo-setosis oblongis obtusis crenatis coadunatis, soris demum confluentibus. Willd. sp. pl. 5. p. 282.

Nephrodium rufidulum. Mich. fl. amer. 2. p. 269.

On rocks: Canada to Pensylvania. 4. July. v. v. A small species, growing in large tufts; it resembles Woodsia hyperborea very much.

### 725. ONOCLEA. Willd. in mag. ges. naturf. fr. z. berl. 1809. p. 160.

1. O. frondibus sterilibus pinnatis, pinnis lanceolatis acutis inciso-dentatis, superioribus coadunatis, fructificantibus bipinnatis, pinnulis recurvato-globosis glabris, rachi glabra. - Willd. sp. pl. 5. p. 287.

Icon, Schkuhr filic. t. 102. Pluk. mant. t. 404. f. 2.

Breyn. cent. t. 56. f. B.

In low pastures and open woods: New York to Florida. 4. July. v. v. About a foot high; leaves pale green.

2. O. frondibus sterilibus pinnatis, pinnis oppositis pinnatifidis, lobis rotundatis: inferioribus sensim minoribus, superioribus coadunatis, fructificantibus bipinnatis, pinnulis incisis recurvato-globosis villosis, rachi squamosa. - Schkuhr filic. p. 95. t 103.

In low grounds: Pensylvania. 4. July. v. v. Not

so large as the preceding.

tenue.

rufidulum.

sensibilis.

obtusilobata.

#### 726. STRUTHIOPTERIS. Willd. in mag. ges. nat. fr. z. berl. 1809. p. 160.

1. S. frondibus sterilibus bipinnatifidis, laciniis integerripensulvanica. mis obtusis, infima elongata acuta. Willd. sp. pl. 5. p. 289.

Onoclea nodulosa. Schkuhr filic. p. 96. t. 104.

In Pensylvania. Muhlenberg. 4. +. Resembles S. germanica.

#### 727. ASPLENIUM. Swartz. synop. filic. p. 4.

1. A. frondibus lanceolatis stipitatis subcrenatis, basi aurirhizophyllum. culato-cordatis, apice longissimo lineari-filiforme radicante. Willd. sp. pl. 5 p. 305.

Icon. Pluk. alm. t. 105 f. 3. Petiv. gazoph. t. 105 f. 7.

Moris. hist. 3. s. 14. t. 5. f. 14.

On wet shady rocks: Canada to Carolina. 4. July. v. v. This fern is highly ornamental to rock-works, and very singular in its striking root at the elongated points of the leaves.

angustifolium.

2. A. frondibus pinnatis, pinnis alternis, superioribus suboppositis, lineari-lanceolatis subrepandis, basi superiore truncatis, inferiore leviter rotundatis. Willd. sp. pl. 5. p. 313.

A. pycnocarpon. Sprengel. anleit. 3. p. 112.

Icon. Schkuhr filic. t. 07. & 69. Moris. hist. 3. s. 14. t. 2. f. 25.

In shady woods, on the banks of rivers: western parts of New York and Pensylvania. 24. July. v.v. A very elegant fern about a foot high.

ebeneum.

3. A. frondibus pinnatis, pinnis sessilibus lanceolatis serrulatis basi cordatis, sursum auriculatis. Willd. sp. pl. 5. p. 329.

A. polypodioides. Swartz. synop. filic. 79. & 272. A. trichomanoides. Mich. ft. amer. 2. p. 265.

Acrostichum platyneuron. Sp. pl. 1527. excl. synon. Icon. Schhuhr filic. t. 73. Pluk. alm. t. 287. f. 2. et

t. 89. f 8. Moris. hist. 3. s. 14. t. 2. f. 12.

In clefts of rocks: New England to Carolina. 4. July. v. v. A small species.

melanocaulon.

4. A. frondibus pinnatis, pinnis subrotundis obtusis crenatis basi cuneatis, stipite discolore. Willd. enum. 1072. Willd, sp. pl. 5. p. 332.

A. trichomanes. Mich. fl. amer. 2. p. 264.

On rocks: Canada to Carolina. 4. July. v. v. Very small: stem polished, black.

5. A. frondibus pinnatis, pinnis sessilibus lanceolatis acuminatis profunde pinnatifidis, laciniis oblongis obtusis obtuse-serratis, soris parallelis demum confluentibus.
—Willd. sp. pl. 5. p. 336.

thelypterioides.

A. acrostichoides. Swartz. synop. filic. 82. & 275.

Icon. Schkuhr filic. t. 76. b.

In shady woods on the sides of rivulets: Pensylvania to Carolina. 4. July. v. v. Resembles Aspidium Thelypteris very much; it is from eighteen inches to two feet high.

 A. frondibus basi bipinnatis, apice simpliciter pinnatis, pinnulis rhombeo-oblengis obtusis, apice obtuse denticulatis. Willd. sp. pl. 5. p. 341.

Ruta muraria.

Icon. Schkuhr filic. t. 80. b. Fl. dan. 190.

In clefts of rocks: New York to Carolina. 4. July. v. v. The American plant is very small, scarcely ever exceeding an inch or two in height.

A. frondibus glabris bipinnatis, pinnulis lanceolatis pinnatifidis, laciniis tri- vel bidentatis.—Willd. sp. pl. 5.
p. 342.

montanum.

A. Adiantum nigrum. Mich. fl. amer. 2. p. 265.

In clefts of rocks, on the mountains of Virginia and Carolina. 4. July. v. v. A much smaller plant than A. nigrum, to which it has some resemblance.

728. SCOLOPENDRIUM. Smith act. taur. 5. p. 410. t. 9. f. 2.

 S. frondibus lato-lanceolatis basi cordatis, stipite paleaceo. officinarum. Willd. sp. pl. 5. p. 348.

Asplenium Scolopendrium. Sp. pl. 1537.

Icon. Schkuhr filic. t. 83. Pluk. phytogr. t. 248. f. 1.

In shady woods, among loose rocks in the western parts New York, near Onondago, on the plantations of J. Geddis, Esq. 4. July. v.v. This species I have seen in no other place but that here mentioned, neither have I had any information of its having been found in any other part of North America.

#### 729. PTERIS. Gen. pl. 1626.

pedata.

 P. frondibus profundissime quinquelobo-palmatis, lobis pinnatifidis, laciniis lineari-lanceolatis acutis, infima lobi intermedii utrinque pinnatifida, lobo intermedio basi longissime cuneato, sinubus acutis.—Willd. sp. pl. 5. p. 358.

Icon. Schkuhr filic. t. 100. Plum. amer. t. 34. fil. t. 152. Petiv. filic. t. 8. f. 12. Pluk. alm. t. 286. f. 5.

On rocks: Virginia. 4. July. v.s. About six inches high.

atropurpurea.

2. P. frondibus pinnatis, pinnis inferioribus ternatis pinnatisve lanceolatis obtusis, basi obtuse truncatis subcordatisve. Willd. sp. pl. 5. p. 375.

venosa.

α. P. pinnulis subtus venosis, stipite angulato.
 Icon. Schkuhr filic. t. 101. Pluk. mant. t. 349. f. 1.

punctata.

- β. P. pinnulis subtus punctatis, stipite terete.
   P. spiculata. Schhuhr filic. t. 100.
  - In clefts of rocks: Pensylvania to Carolina. 4. July. v. v. About a span high; grayish-green with dark purple stems.

gracilis.

3. P. frondibus pinnatis, pinnis lanceolatis obtusis alternis sessilibus, inferioribus pinnatifidis, fertilibus integerrimis, sterilibus crenatis rotundato-obtusis. Willd. sp. pl. 5. p. 376.

On rocks in Canada. Michaux. 4. July. v. s. Not above four inches high; stems yellowish-green,

smooth and shining.

caudata.

4. P. fronde pinnato-tripartita, ramis sterilibus bipinnatis, pinnulis linearibus elongatis obtusis integerrimis, inferioribus bipinnatifidis, fructificantibus pinnatis, pinnis remotiusculis inferioribus basi pinnatifido-dentatis.—Willd. sp. pl. 5. p. 401.

Icon. Jacq. ic. rar. 3. t. 645. Plum. amer. t. 22. filic.

t. 29.

In shady stony woods, on the side of rivulets: Pensylvania to Carolina. 4. Aug. v. v.

aquilina.

5. P. fronde pinnato-tripartita, ramis sterilibus bipinnatis, pinnis lineari-lanceolatis obtusis pinnatifido-dentatis, fructificantibus pinnatis, pinnulis pinnatifidis, laciniis acutiusculis, omnibus ciliatis.—Willd. sp. pl. 5. p. 402.

Icon. Schkuhr filic. t. 95. 96. b. Plum. filic. t. A. f. 1. In dry barren woods: Canada to Florida. 4. Aug.

v. v. It deviates in some respects from the European plant, but is not sufficiently distinct to form a separate species, as it is well known how much the European species itself assumes different appearances in different soils.

## 730. VITTARIA. Smith act. taur. 5. p. 413. t. 9. f. 5.

1. V. frondibus linearibus longissimis pendulis, soris solitariis intra marginalibus. Willd. sp. pl. 5. p. 404.

V. angustifrons. Mich. fl. amer. 2. p. 261.

I teris lineata. Sp. pl. 1530.

Icon. Schkuhr filic. t. 101. b. Plum. amer. t. 41. filic.

t. 143. Petiv. filic. t. 14. f. 3.

On the banks of the rivulet Aisa-hatcha, Florida. Michaux. 4. +. The leaves resemble those of a common grass.

#### 731. BLECHNUM. Gen. pl. 1627.

1. B. frondibus sterilibus pinnatifidis, laciniis lanceolatis obtusiusculis parallelis, fructiferis pinnatis, pinnis linearibus acuminatis. Willd. sp. pl. 5. p. 408.

B. Spicant. Roth. fl. germ. 3. p. 44.

Onoclea Spicant. Hoffm. fl. germ. 2. p. 11.

Osmunda Spicant. Sp. pl. 1522.

Icon. Schkuhr filic. t. 110. Fl. dan. 99. Bolt. filic. t. 6. Moris. hist. 3. s. 14. t. 2. f. 23.

On the north-west coast. M. Lewis. 4. Aug. v.s. in Herb. Lewis.

2. B. frondibus pinnatis, pinnis lanceolatis utrinque atte- serrulatum. nuatis basi decurrentibus argute serratis. pl. 5. p. 411.

On the banks of the rivulet Aisa-hatcha, Florida, Michaux. 4. +.

### 732. WOODWARDIA. Smith act. taur. 5. p. 411. t. 9. f. 5.

1. W. frondibus sterilibus pinnatifidis, laciniis lanceolatis repandis tenuissime serrulatis, fructiferis pinnatis, pinnis linearibus integerrimis acutis. Willd. sp. pl. 5. p. 416.

W. angustifolia. Smith act. taur. 5. p. 411. W. floridana. Schkuhr filic. p. 103. t. 111.

Onoclea nodulosa. Mich. fl. amer. 2. p. 272. Swartz. synop. filic. 111.

lineata.

boreale.

onocleoides

Acrostichum areolatum. Sp. pl. 1526. Osmunda caroliniana. Walt. fl. car. 257.

Icon. Schkuhr l. c. Pluk. phytogr. t. 399. f. 1. Moris. hist. 3. s. 14. t. 2. f. 24.

In cedar and cypress-swamps: New Jersey to Florida.
4. Aug. v. v. About a foot high.

virginica.

 W. frondibus glaberrimis pinnatis, pinnis sessilibus lanceolatis pinnatifidis, laciniis oblongis obtusis crenulatis, fructiferis elongatis, stipite glabro tereti.—Willd. sp. pl. 5. p. 418.

W. Banisteriana. Mich. fl. amer. 2. p. 263.

Blechnum virginicum. Mant. 307.

Blechnum carolinianum. Walt. fl. car. 257.

Icon. Pluk. alm. t. 179. f. 2.

In swamps and shady woods: Virginia and Carolina. 4.

July. v. v. Above a foot high.

thelypterioi= des. 3. W. frondibus pinnatis, pinnis sessilibus basi villosis lineari-lanceolatis pinnatifidis, laciniis sterilium oblongis obtusiusculis, fertilium abbreviato-triangularibus acutis, omnibus integerrimis, stipite pubescente angulato.

In sandy swamps: South Carolina, near Charlestown. 4. July. v. v. Resembles the preceding, but is not half the size.

## 733. ADIANTUM. Gen. pl. 1633.

pedatum.

1. A. fronde pedata, ramis pinnatis, pinnis dimidiatis oblongis lunatis margine superiore incisis, laciniis sterilibus dentatis, fertilibus integerrimis, soris linearibus, stipite glabro. Willd. sp. pl. 5. p. 438.

Icon. Schkuhr filic. t. 115. Pluk. alm. t. 124. f. 2.

Corn. canad. t. 6.

In shady woods: Canada to Virginia. 4. July. v.v. A very elegant fern.

## 734. CHEILANTHES. Swartz. synop. filic. p. 5.

vestita.

C. frondibus bipinnatis utrinque hirtis, pinnulis pinnatifidis, laciniis oblongis obtusis integerrimis, stipite rachibusque hirtis. Willd. sp. pl. 5. p. 458.
 Adiantum vestitum. Sprengel. anleit. 3. p. 122.
 Aspidium lanosum. Swartz. synop. filic. p. 58.

Nep rodium lanosum. Mich. fl. amer. 2. p. 270.

Icon. Schkuhr filic. t. 124.

On rocks: Pensylvania to Virginia and on the Missouri. 2. July. v. v. A handsome very small fern, covered with long brownish hair.

2. C. frondibus triplicato-pinnatis, pinnulis ovalibus distinctis apice crenatis aut emarginatis subtus dealbatis.

On rocks, on the banks of the Missouri, 24. July. v.s. A very delicate small fern, very much resembling C. tenuifolia.

dealbata.

## 735. DICKSONIA. L'Herit. sert. angl. 30.

1. D. frondibus bipinnatis, pinnulis oblongo-lanceolatis pin- pilosiuscula. natifidis, laciniis margine superiore inciso-dentatis, rachibus pilosiusculis. Willd. sp. pl. 5. p. 484.

D. pubescens. Schkuhr filic. p. 125. t. 131. Polypodium pilosiusculum. Muhlb. in litt.

In shady woods, among rocks: Pensylvania and Virginia. 4. v. v. A foot or more high, resembling Aspidium dilatatum.

## 736. HYMENOPHYLLUM. Smith act. taur. 5. p. 418.

1. H. frondibus pinnatis, pinnis infimis majoribus, superioribus sensim minoribus pinnatifidis, laciniis linearibus obtusis bifidis ciliatis, venis hirtis, rachi stipiteque alatis ciliatis. Willd. sp. pl. 5. p. 519.

Trichomanes ciliatum. Swartz. prodr. 136.

In shady forests, on the trunks of old trees: Pensylvania and Virginia. 4. v. v.

ciliatum.

## V. HYDROPTERIDES.

737. ISOETES. Gen. pl. 1620.

1. I. frondibus subulatis semiteretibus. Willd. sp. pl. 5. p. 534.

Icon. Schkuhr filic. t. 173. Fl. dan. 191. Dill. musc.

t. 80. f. 1.

On rocks, on the bottom of rivers: New York, in the Oswego river, near the Falls. 4. v. v. This singular plant, resembling a zoophyte, is about two inches high.

lacustris.

#### 738. SALVINIA. Gen. pl. 1617.

natans.

S. foliis ellipticis obtusis supra fasciculato-setosis, petiolis
pilosis, fructibus subsessilibus aggregatis. Willd, sp.
pl. 5, p. 536.

Marsilea natans. Sp. pl. 1562.

Icon. Schkuhr filic. t. 173. Lam. illust. 863.

Floating, like Lemna, on the surface of stagnant waters: in several of the small lakes in the western parts of New York and Canada. O. v. v.

## 739. AZOLLA. Lam. encycl. 1. p. 340.

caroliniana.

A. foliis imbricatis ovato-oblongis obtusis patentibus subtus rubris.—Willd, sp. pl. 5. p. 541.
 Floating on the waters of Lake Ontario. O. v.v.

Resembles a floating moss or Jungermannia.

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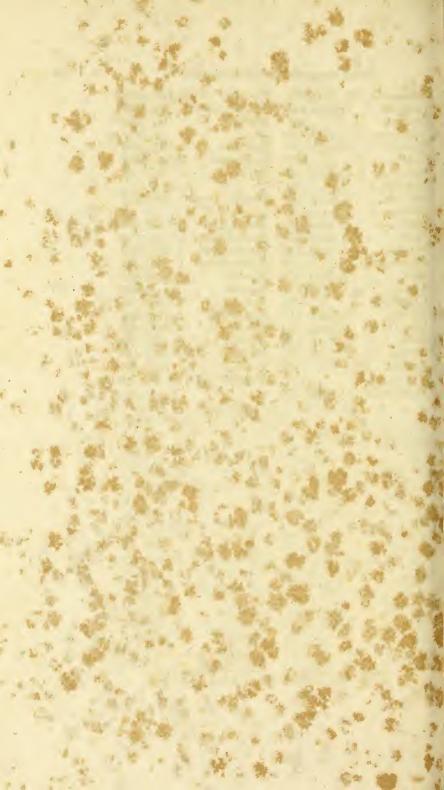
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## SUPPLEMENTUM.

Lycopus exaltatus.—L. foliis basi pinnatifido-serratis, laciniis integerrimis subserratisque, calycibus spinescentibus.—Willd. sp. pl. 1. p. 121.

Icon. Fl. græc. t. 12.

In low shady woods: Virginia to Carolina; rare. 4. July, Aug. v.v.; v.s. in Herb. Sherard. From three to six feet high. This species I omitted for want of a specimen in my Herbarium, though I found it myself in Virginia; but seeing a specimen of Catesby's in the Sherardian Herbarium, I was convinced of its being a real American species.

Monarda rugosa.—M. glabriuscula; capitulis mediocribus subsimplicibus, bracteis exterioribus ovatis undulatis pilosis, calycibus corollisque glabris, lac nia media labii inferioris bidentata, foliis ovatis subcordatis acutis rugosis, nervis subtus petiolisque pilosis, caule acutangulo glabriusculo.—Willd. sp. pl. 1. p. 125.

In Canada and on the mountains of Virginia. 4. July
—Sept. v. v. in Hort. Lambert. About four feet high;

flowers small, white.

Valeriana dioica.—V. glabra; foliis radicalibus subspathulato-ovatis integris longissime petiolatis, caulinis paucis pinnatifidis, laciniis lanceolatis integerrimis subdentatisque obtusiusculis.—Willd. sp. pl. 1. p. 176.

Icon. Fl. dan. 687.

In swamps at Hudson's Bay. Tilden. 4. June. v.s. in Herb. Sherard. About a span high; flowers flesh-coloured.

Fedia chenopodifolia.—F. dichotoma; foliis ovatis acutis inferne dentatis, cymis nudis divaricato-dichotomis, filamentis longis.

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p. 17.

p. 28.

- Valeriana virginiana, pedis anserinæ folio. Pet. H. S. in Herb. Sherard.
- In Virginia. O. v. s. in Herb. Sherard. About a span high; flowers the size of V. officinalis.
- p. 72. Aristida pallens .- A. culmo erecto simplici, foliis filiformibus, radicalibus culmo brevioribus, panicula pauciflora, pedicellis alternis brevibus bifloris, aristis elongatis.-Cav. ic. 5. 1. 468. f. 2.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. About a foot high; the awns more than three

inches high.

Stipa membranacea.— S. foliis convoluto-filiformibus glabris, p. 73. panicula laxa, pedicellis flexuosis, calycibus membranaceis 3-nervibus longe acuminatis, corollis calvce brevioribus sericeo-villosis, villis corollam superantibus, arista nuda recta calyce paulo longiore.

> On the banks of the Missouri. Bradbury. v. s. in Herb. About eighteen inches high; flowers oval, Bradbury.

covered with long silky hair.

Bromus altissimus.—B. panicula nutante, spiculis oblongis p. 85. sub-6-floris, flosculis pubescentibus, valvula exteriore 3-nervata breviter aristata, foliis vaginisque glabris, culmo glabro altissimo.

On the banks of the Missouri. 4. July, Aug. v. v. in Hort, Lambert. From five to eight feet high.

Cynosurus secundus.—C. glaber; foliis linearibus, spica p. 88. elongata unilateralis, spiculis solitariis, defloratis reflexis, calycibus lineari-lanceolatis acutissimis.

In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury.

Resembles C. retroflexus very much.

Allionia linearis .- A. caule erecto tereti, foliis linearibus p. 97. subcarnosis, floribus racemosis, pedicellis aggregatis, staminibus longissime exertis.

Calymenia angustifolia. Fraser Catal. 1813.

- In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury.
- Allionia hirsuta.—A. caule erecto angulato, foliis lanceolatis nervosis utrinque hirsutis, calycibus hirsutissimis sub-3-floris.
  - In Upper Louisiana. Bradbury. v. s. in Herb. Bradtury.

Plantago elongata.—P. foliis linearibus integerrimis g'abris, scapo spicis elongatis subimbricatis foliis longioribus, bracteis ovatis acutis margine membranaceis.

p. 99.

In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury. Resembles P. pauciflora.

Pulmonaria lanceolata.—P. glabra, erecta; foliis radicalibus longissime pedicellatis lanceolatis, caulinis linearioblongis, floribus subpaniculatis, calycibus abbreviatis. p. 131.

In Upper Louisiana. Bradbury. 4. v.s. in Herb. Bradbury. Flowers small, resembling those of P. paniculata.

Pulmonaria sibirica.—P. calycibus abbreviatis, foliis radicalibus cordatis. IVilld. sp. pl. 1. p. 770.

Anchusa. Gmel. sib. 4. p. 75. no. 15. t. 39.

In Canada. Masson. 4. July. v. s. in Herb. Lambert. Flowers purple, in terminal corymbs; it resembles P. virginica very much.

Cynoglossum glomeratum.—C. hispidum; foliis spathulatis obtusis, floribus glomeratis.

p. 133.

C. glomeratum. Fraser. catal. 1813.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury.

Lysimachia lanceolata.—L. glaberrima; foliis quaternis subpetiolatis lanceolatis promisse acuminatis, pedunculis quaternis multifloris, floribus summis racemosis, corollæ laciniis ovatis acutis, caule erecto simplici.

p. 135.

L. caroliniana quadrifolia, foliis acutis. Herb. Sherard. In Carolina Catesby. 24. v. s. in Herb. Sherard. Flowers the size of L. vulgaris.

Calystegia Catesbeiana.—C. volubilis, tomentosa; foliis oblongis sagittatis acumininatis, pedunculis unifloris folio brevioribus, bracteis ovalibus obtusis calyce longioribus

p. 143.

In Carolina, Catesby, v. s. in Herb. Sherard. Flowers large, purple.

Calystegia paradoxa.—C. humifusa, tomentosa; foliis oblongis cordato-sagittatis acutis, pedunculis unifloris elongatis folio longioribus, bracteis a flore remotis linearibus, calycibus nudis glabris acuminatis.

Convolvulus virginianus, læviter hirsutis et obloagis foliis, flore maximo albicante. Pluk. mant. 54, secundum

Herb, Sherard.

- In Virginia or Carolina. v. s. in Herb. Sherard. Flowers large, white.
- p. 143. Convolvulus Sherardi.—C. humifusus, pubescens; foliis ellipticis utrinque retusis mucronatis, floribus solitariis subsessilibus.
  - C. forte monococco Banist. similis, sed vasculis sessilibus. Herb. Sherard.
  - In Carolina. Catesty. ①. v. s. in Herb. Sherard. Resembles C. trichosanthes very much; I have only seen a specimen with fruit.
- p. 147. Cantua parviflora.—C. pubescens, diffusa; foliis pinnatifidis, laciniis linearibus elongatis, pedunculis solitariis unifloris terminalibus et oppositifoliis, corollis calyce vix longioribus.

Ipomopsis inconspicua. Smith exot lot. 1. t. 14.

- In North America. Hoy. ①. June. v. v. in Hortis. Flowers small, pale blue. I insert this plant on the authority of Exotic Botany; but at the same time I doubt very much of its being a native of North America, and more strongly suspect it to come from Mexico.
- p. 148. Phlox acuminata.—P. erecta, pubescens; caule angulato, foliis ovato-lanceolatis acuminatis inferne angustatis subpetiolatis subtus pubescentibus, floralibus subcordatis, corymbis paniculatis, corollæ laciniis rotundatis, tubo pubescente, calycibus aristatis.

Phlox decussata. Lyon catal. 1812.

- On the mountains of Georgia and South Carolina. Lyon. 4. Aug. Sept. v. v. in Hort. Lambert. From four to five feet high; flowers very handsomely variegated, with dark and light shades of purple.
- p. 149. Phlox nitida.—P. erecta, glaberrima; caule tereti maculato lævigato, foliis ovato-oblongis subcarnosis supra nitidis atrovirentibus, subtus pallidis, corymbis fastigiatis, ramis inferioribus elongatis nudiusculis, corollæ laciniis lato-obovatis subretusis, dentibus calycinis lanceolatis mucronatis.

P. suffruticosa. Hortul.

In South Carolina. Fraser. 4. Aug.—Oct. v. v. in Hortis. Near two feet high; flowers of a brilliant purple, which is deeper than in any other species. This species approaches near to P. Carolina; but besides its other characters it distinguishes itself very easily by flowering later and longer than that species.

Solanum heterandrum.—S. annuum; caule foliisque aculeatis, foliis ovatis pinnatifidis utrinque hirsutis, laciniis obtusiusculis, antheris declinatis distantibus, ima corniformi productiore, bacca calyce echinato inclusa.

p. 156.

Icon. Tab. 7.

The present description has been taken from a living plant raised by A. B. Lambert, Esq. from seeds received of Mr. Nuttall. The native specimen the former description was made from was very imperfect.

p. 157.

Physalis somnifera.—P. perennis, tomentosa; foliis ovatis integerrimis, floribus confertis brevissime pedicellatis, corollis campanulatis. Willd. sp. pl. 1. p. 1019.

Icon. Cav. ic. 2. t. 103.

In South Carolina. Catesby. 4. July. v. s. in Herb. Sherard. Flowers small, brownish-yellow.

p. 159.

Campanula nitida.—C. glaberrima; foliis radicalibus spathulato-oblongis coriaceis cartilagineo-crenatis, caulinis lanceolato-oblongis subintegerrimis, floribus racemosis, corollis campanulato rotatis.—Willd. sp. pl. 1. p. 899.

C. americana minor, flore cœruleo patulo. Rob. ic.
In North America. 4. July. v. s. in Herb. Lambert.
nec non Sherard. About a span high; flowers middle
size, fine blue. What part of America it is from is not
known, but I suppose it to be Hudson's Bay. Misled
by Michaux, this plant had been inserted as a synonym to C. acuminata, with which it has not the least
connection.

p. 163.

Ribes laviflorum.—R. inerme; foliis cordatis 5-lobis incisodentatis glabris, petiolis gracilibus, racemis laxis erectis longitudine foliorum, bracteis subulatis, pedicellis elongatis, calycibus campanulato-tubulatis, baccis globosis hispidis.

On the north-west coast. Menzies. h. v. s. in Herb. Banks. The flowers appear to be yellow, about the

size of R floridum.

Ribes speciosum.—R. sub gemmis 3-plicato-aculeatum; foliis cuneato-subrotundis inciso-crenatis glabris nervosis subtus pallidioribus, petiolis brevibus, pedunculis sub-3-floris foliis longioribus, pedicellis germinibusque glanduloso-pilosis, calycibus tubulatis pedicellis longioribus, staminibus longissime exertis.

On the north-west coast. Menzies. L. v. s. in Herb.

Banks. The younger branches are hispid; the flowers

p. 165.

large, purple. The leaves are small, and have some resemblance to those of *Thalictrum*,

p. 165. Ribes Menziesii.—R. sub gemmis 3-plicato-aculeatum; ramis hispidissimis, foliis basi truncatis sub-5-lobis incisodentatis, lobis lateralibus brevioribus, subtus tomentosis, pedunculis subbifloris foliis subæquantibus, calycibus tubulosis: limbo patente, staminibus longitudine calycis, stylo exerto, baccis globosis aculeatis.

On the north-west coast, near Fort Trinidad. Menzies. b. v. s in Herb. Banks. The flowers of the size and

colour of R. sanguineum.

p. 173. Viola asarifolia.—V. acaulis, pubescens; foliis dilatato-reniformibus acutis circumcirca crenato-dentatis basi flabellatim in petiolum attenuatis, pedunculis foliis multo brevioribus.

Viola caroliniana maxima, foliis cucumerinis, floribus ad radicem pediculis brevibus natis. *Herb. Sherard*,

- In low rich woods: Virginia to Carolina. Catesty. 4. May. v. s. in Herb. Sherard. I have seen this species several times in Virginia, but generally without flowers; which has been the reason that no specimen was in my collection.
- p. 190. Hydrocotyle ambigua.—H. folio radicali composito, caule subaphyllo 2-3-umbellifero, umbellulis sub-3-floris, petalis lanceolatis.

In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury. A very small plant; flowers in proportion large, white, with purple anthers; resembling H. composita.

p. 192. Selinum acaule.—S. glabrum, acaule; foliis bipinnatis, foliolis linearibus superioribus confluentibus, scapis radicalibus foliis brevioribus, umbellulis radii masculis.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Not above two or three inches high; the seeds resembling those of Pastinaca sativa.

p. 197.
 Seseli divaricatum.—S. caule ramosissimo divaricato, foliis bipinnatifidis, laciniis lanceolatis incisis, involucris nullis, involucellis linearibus.
 In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury.

In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury. Resembles S. tortuosum very much.

p. 223.

Allium cernuum.—A. scapo nudo tetragono umbellifero, foliis linearibus planiusculis, umbella cernua, staminibus simplicibus, germine sex-dentato. Roth in Annals of bot. 2. p. 27.

Icon. Cat. bot. fasc. 2. t. 2. Bot. mag. 1324.

On the mountains of Virginia and Carolina. 4. July, Aug. v. v. Flowers large, rose-coloured, sweetscented; the leaves have scarcely any scent.

Smilacina stellata, \( \beta \). uniflora. —S. foliis subfalcato-lanceolatis glabriusculis, caule unifloro.

Polygonatum monanthemum, flore parvo erecto. Sherard.

In Hudson's Bay. Tilden. U. v. s. in Herb. Sherard. As I have seen but one individual specimen, I consider it only as a variety, though it is probable it may be a distinct species.

Helonias graminea.—H. scapo folioso paniculato, racemis divaricatis, bracteolis ovatis pedicellis longioribus, petalis oblongis acuminatis, staminibus corolla triplo brevioribus, foliis linearibus canaliculatis subtus glaucis.— Bot. mag. 1599.

On the mountains of Georgia. Lyon. 4. Aug. v. s. in Herb Lyon. This species has a strong affinity with

Nolina Georgiana.

Rumex venosus.—R. valvulis maximis integerrimis reticulatovenosis, foliis lanceolatis integerrimis parallelo-venosis. In Upper Louisiana. Bradbury. 4. v. s. in Herb.

Bradbury. The seeds resemble those of R vesicarius.

Smilax circidifolia.—S. aculeata; foliis inermibus orbiculatocordatis acuminatis 5-nervibus utrinque glabris reticulato-venosis breviter petiolatis.

S. floridana; viticulis spinosis judaicæ arboris folio maxi-

mo cordato. Pluk. amalth. 194.

In South Carolina. Catesby h. v. s. s fl. in Herb. Sherard. Though the description was taken from a specimen without flowers, I am convinced of its being a distinct species from any one described.

Gaura coccinea.—G. sericeo-pubescens; foliis lineari-lanceolatis subdenticulatis, spica conferta, petalis longitudine calycis, stigmate subintegro.

G. coccinea. Fraser. catal. 1813.

In Upper Louisiana Bradbury. v. s. in Herb. Bradbury. About a span high; flowers smaller than G. biennis, scarlet. In the Catalogue quoted this plant is marked as a perennial, but by the appearance of the specimen I should take it to be only annual.

Oenothera albicaulis.—O. tenuissime pubescens; caule nervisque foliorum albidis, foliis pinnatifidis, laciniis divap. 233.

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ricatis, floribus subspicatis, germinibus sessilibus cylindraceis, staminibus corolla brevioribus, petalis obcordatis.

O. albicaulis. Fraser. catal. 1813.

In Upper Louisiana. Bradbury. S. v. s. in Herb. Bradbury Not above four inches high; flowers large, white. This species is intermediate between O. tetraptera and O. sinuata.

Oenothera Fraseri.—O. glabriuscula; caule inferne simplici, superne ramuloso, foliis ovatis petiolatis glanduloso-denticulatis, racemis foliosis, capsulis pedicellatis obo-

vatis 4-gonis.

In South Carolina. Fraser. 4. June, July. v. v. in Hortis. This species approaches so near to O. fruticosa that it is difficult to define the distinction, though their other habits are so very different. The present species flowers a short time, the stems decay, and form immediately a tuft of large radical leaves. O. fruticosa flowers till late in autumn, and nevershows its radical leaves in that manner. The differentia specifica of O. fruticosa will be O. fruticosa, tenue pubescens; caule a basi ramosa, divaricata, foliis sessilibus lanceolatis subdentatis acutis, capsulis pedicellatis oblongo-clavatis angulatis.

Qenothera macrocarpa.—O. glabriuscula; caule ramoso, foliis lanceolatis, petiolatis, distanter glanduloso-denticulatis margine nervisque sericeo-albidis, petalis cum acumine obcordatis, capsulis ellipticis 4-alatis brevissime pedicellatis.

O. missourensis. Bot. mag. 1592.

On the banks of the Mississippi, near St. Louis. July-Oct. v. v. in Hort. Lambert. This species exceeds in size and beauty of its flowers any other one known; they are of a bright yellow, very large, and open about five o'clock in the evening. The calyx is covered with a very fine and white silky down, and is spotted with purple. The figure in the Botanical Magazine is apparently taken from a very weak and starved plant: the flowers of those in possession of A. B. Lambert, Esq., were nearly six inches in diameter, and the tube nearly seven inches long. There is an inequality on the edges of the petals, but by no means can it be called serrulate, which term has been introduced in the differentia specifica, and strongly but erroneously expressed in the figure. The specific name given there is inapplicable, as it never was found any where else,

but near St. Louis, where Mr. Nuttall gathered the ripe fruits of it, specimens of which I have seen.

Oenothera cæspitosa.—O. acaulis; foliis lanceolatis incisodentatis, capsulis oblongis sessilibus, calycis tubo longissimo, petalis bilobis distantibus. Sims in Bot. mag. 1593.

O. scapigera. Fl. amer. sept. 1. p. 263.

On the banks of the Missouri. Lewis. 4. June. July. v. v. in Hort. Fraser; v. s. specimen imperfectum in Herb. Lewis. This singular species resembles O. acaule of Cavanilles. The flowers open in the evening, are white, changing to red, and of an agreeable scent. The erroneous description given in the place above quoted was owing to a very imperfect specimen in the Lewisian collection.

Eriogonum pauciflorum.—E. caule simplici basi folioso, umbellis paucifloris, floribus subsessilibus, foliis linearilanceolatis utrinque cano-tomentosis.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. This is the smallest species, generally from two to three inches high; the flowers appear to be

Cactus viviparus.—C. subrotundus multiplex, tuberculis cylindraceis barbatis supra sulca exaratis proliferis.

C. viviparus. Fraser. catal. 1813.

In Upper Louisiana. b. v. v. s. fl. in Hort. Lambert. Resembles C. mammillaris; the flowers are large and red; the fruit the size of a grape, green and eatable. In the same collection are also the two other species mentioned in Fraser's Catalogue; but only seeing the plants without flowers, I could not define their characters.

Cratægus turbinata.-C. inermis, glabra; foliis cuneatoobovatis incisis serratis, corymbis paucifloris, pedicellis brevibus, fructibus turbinatis.

In Carolina and Virginia. b. June. v. v.; v. s. in Herb. Sherard This species approaches near to C. spathulata, but its fruit distinguishes it from all the rest of the American species.

Rosa lutescens.—R. germinibus globosis pedunculisque glabris, ramulis hispido-spinosis, foliolis (7) glabris ovalibus acuminato-serratis, petiolis inermibus, floribus sop. 263.

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- litariis, laciniis calycis lanceolatis cuspidatis, petalis ovalibus obtusissimis.
- In Carolina. b. May, June. v. v. in Hort. Lee. Flowers white, with a faint tint of yellow.
- p 352. Geum triflorum—G. pilosum; caule simplici subtrifloro, foliis radicalibus interrupte pinnatis, foliolis cuneatis in ciso-dentatis, petalis oblongis longitudine calycis, aristis longissimis villosis.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. The arists of the seeds are resembling those of Clematis.

Ciemuits

p. 356. Potentilla arguta.—P. erecta, simplex, pubescens; foliis pinnatis, foliolis ovatis argute dentatis, exterioribus majoribus, stipulis rhomboideis incisis, floribus terminalibus conferto-corymbosis.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Flowers yellow; leaves large.

- p. 384. Clematis Catesbyana.—C. scandens, pubescens; foliis biternatis, foliolis subcordatis trilobis, paniculis divaricato-dichotomis, petalis staminibus longioribus, floribus subdioicis.
  - In South Carolina. Catesby. V. v. s. in Herb. Sherard. Resembles C. virginica. The filaments of the female flowers are membranaceous, linear, and without anthers.
- p.385. Clematis ovata.—C. erecta, simplex; foliis ovatis sensim acutis brevi-petiolatis glabris utrinque reticulato-venosis, inferioribus subcordatis pedunculo terminali solitario unifloro, aristis plumosis longissimis.

In South Carolina. Catesby. 4. v. s. in Herb. Sherard. Resembles C. integrifolia. In the Sherardian Herbarium the figure of Pluk. mant. t. 379. f. 4. is quoted; but I consider that figure to be an imperfect specimen of a Clematis with compound leaves.

p. 395. Ranunculus multifidus.—R. foliis tripartito-multifidis: laciniis incisis approximatis, caule natante, foliolis calycis subrotundis petalis paulo brevioribus.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Flowers yellow; resembles R. fluviatilis.

p. 424. SEYMERIA. Cal. campanulatus, 5-partitus: laciniis linearibus, æqualibus. Cor. campanulata. Tubus calyce

vix longior. Limbus 5-fidus: laciniis subæqualibus, oblongis, patentibus. Filamenta 4. brevia, fauce inserta. Antheræ erectæ, oblongæ, nudæ, longitudine corollæ. Stylus declinatus, longitudine staminum. Stigma simplex. Caps. subrotunda, 2-locularis, 2-valvis, apice dehiscens.

Seymeria tenuifolia.—S. glabriuscula, virgatim paniculata; foliis setaceo-pinnatifidis, laciniis divisis.

Gerardia Cassioides. Vol. 2. p. 424.

In dry sandy woods of Carolina and Georgia. . July, Aug. v. s. in Herb. Sherard. Flowers small, dark yellow.

Seymeria pectinata.—S. viscido-pubescens, brachiatim ramosissima; foliis pectinato-pinnatifidis, laciniis indivisis linearibus acutis.

In South Carolina. Catesby. O July. v. s. in Herb. Sherard. Flowers the size and colour of the preceding. While writing the genus Gerardia, I strongly suspected G. cassioides to be a distinct genus, which already had been considered so by Walter and Gmelin. Having no materials then at hand, I followed the authority of Michaux. But finding in the Sherardian Herbarium not only that species, but also a new one described here, I was convinced of its generic distinction, the character of which is well expressed in Walt. fl. car. 171. I have named this genus in memory of the late Henry Seymer, Esq. of Hanford, Dorsetshire, a gentleman much celebrated for his extensive collections in natural history, and for whom Dr. Solander had so great a regard as to dedicate the plant which afterwards was called Solandra grandiflora to his memory, as I have seen it named Seymera in the Herbarium of A. B. Lambert, Esq., in Dr. Solander's own handwriting.

Chelone Lyoni.—C. glabra, ramosa; foliis petiolatis cordatoovatis serratis, spicis terminalibus densifloris.

In Upper Carolina and Georgia. Lyon. 4. July—Sept. v. s. in Herb. Lambert. This is a very fine and large species; flowers purple.

Pentstemon erianthera.—P. caule pumilo pubescente, foliis oblongis acutis obsolete denticulatis subhirsutis, floribus racemosis, pedicellis plerumque solitariis, filamento sterili exerto apice revoluto longitudinaliter barbato, calycis foliolis linearibus hirsutissimis.

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P. erianthera. Fruser. catal. 1813.

In Upper Louisiana. Bradbury 4. v. s. in Herb. Bradbury. Not above a span high; flowers large in proportion, of a deep purple; the hairs of the infertile anthera are long and golden yellow. It approaches near to P. frutescens.

Pentstemon angustifolia.—P. caule vix pubescente, foliis glabris longe linearibus integerrimis, floribus racemoso-paniculatis, filamento sterili reliquis breviore superne subhirsuto, calycis foliolis lanceolatis glabris.

P. angustifolium. Fraser. catal, 1813.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Flowers resembling those of P. pubescens.

Pentstemon glabra.—P. caule foliisque glabris, foliis subamplexicaulibus ovato-oblongis integerrimis, floribus racemoso-paniculatis, filamento sterili nudo clavato apice retuso, calycis foliolis subrotundis acuminatis, laciniis corollæ subæqualibus rotundatis, antheris hirsutis.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. A fine and large species; flowers dark purple.

Pentstemon Bradburii.—P. glaberrima; foliis subamplexicaulibus ovato-oblongis integerrimis, superioribus subrotundis, floribus verticillatis, filamento sterili apice brevi barbato, calycis foliolis oblongis acutis.

P. grandiflorum. Fraser. catal. 1813.

This is the finest and largest of all the species; the flowers very large, and variable in their colour.

p. 431. Castilleja sessiliflora.—C. foliis apice palmato-incisis, floribus sessilibus.

In Upper Louisiana. Bradbury. 4. v. s. in Herb.

Bradbury.

Caulis ramosus, teres, dense pubescens. Folia alterna, sessilia, utrinque pubescentia, apice in lacinias 3—5. divisa: laciniis linearibus, elongatis, acutis. Flores in apice ramorum axillares, solitarii, sessiles, coccinei? Calyx tubulosus, basi ventricosus, 4-fidus? Corolla ringens. Labium superius acutum? inferius trifidum: laciniis linearibus, acutis, labio superiore vix brevioribus. Stamina fauci corollæ inserta, filiformia, longitudine labii superioris, glabra. Antheræ lineares. Stigma exertum.

This highly interesting plant has some distant affinity with C. fissifolia. Smith ic. ined. t. 40.

Cleome pinnata.—C. subpubescens, hexandra; foliis pinnatis, foliolis lanceolatis inferne attenuatis rariter dentatis, superioribus confluentibus, floribus racemosis, pedicellis aggregatis,

In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury. About two feet high; flowers of a bright yellow; the

pods are on very long pedicels.

Polygala corymbosa.—P. caule inferne simplicissimo, summitate ramosa corymbose multifloro, foliis linearibus.— Mich. fl. amer. 2 p. 54. P. cymosa. Walt. fl. car. 179.

In swamps: Carolina to Florida. 2. July, Aug. v. s. Flowers yellow, when dried green.

Vicia stipulacca.—V racemis subquadrifloris folio longioribus, stipulis foliiformibus basi semisagittatis integris, foliolis 8-10. lineari-lanceolatis utrinque acutis nervosis glabris.

In Upper Louisiana. Bradbury. 4. v. s. in Herb.

Bradbury.

Caulis subtetragonus, striatus, simplex, vix pedalis. Foliola 8-10. opposita lineari-lanceolata acuta glabra utrinque elevato-nervosa. Stipulæ longitudine foliorum, basi semisagittatæ, auriculis acutis. Cirrhus obsoletus, setaceus. Pedunculi axillares folio duplo longiores. Racemi plerumque 4-tlori. Flores magni, purpurei. Legumen glabrum.

Ervum multiflorum.—E. racemis pedunculatis multifloris folio longioribus, leguminibus lanceolatis glabris sub-4-spermis, stipulis ovatis acuminatis, foliolis linearibus obtusis, cirrhis nullis, caule paniculato.

Astragalus tenellus. Vol. 2. p. 473.

In Upper Louisiana. M. Lewis and Bradbury. 4. Aug.

v. s. in Herb. Lewis. nec non Bradbury.

Caulis erectus, paniculato-ramosus, teres. Ramuli juniores sericei. Foliola plurima, alterna linearia, obtusa, glabriuscula. Cirrhi nulli. Stipulæ ovatæ longe acumi-Racemi axillares, elongati, pedunculati. Bracteæ minutæ, ovatæ, acuminatæ, vix longitudine pedicellorum. Pedicelli flore breviores. Flores parvi albidi, vexillo oblongo. Calyx sericeus, corolla triplo brevior, dentibus subulatis. Stylus filiformis, glaber, p. 441.

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inflexus. Stigma acutum, glabrum. Legumina pendula, oblongo-lanceolata, glabra, 3-4-sperma.

Of this plant I had an imperfect specimen in the Lewisian Herbarium, together with some pods of an Astragalus, which led me into the error of placing it under that genus; but having since seen fine specimens in the collection of Mr. Bradbury, I was enabled to correct this error.

- Astragalus racemosus.—A. caulescens, erectus, subpubescens; foliolis (21) lanceolatis superne sensim minoribus, stipulis ovatis acuminatis, spicis racemosis pedunculatis folio longioribus, densifioris, bracteis linearibus pedicellis brevioribns, calycibus glabriusculis, dentibus subulatis.
  - In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Flower white. Resembles A. carolinianus.
- Astragalus carnosus.—A. caulescens, diffusus, albido-sericeus, foliolis (21) ellipticis supra glabris, subtus sericeis, stipulis subulatis, spicis subsessilibus, leguminibus globosis inflatis carnosis.
  - In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury. The fruit resembles that of A. psysodes. Flowers appear to have been white. This is probably the A. crassicarpus Fraser. catal. 1813.
- p. 478. Astragalus triphyllus.—A. acaulis, argenteus, foliis ternatis, foliolis sessilibus lanceolatis, scapo nullo, leguminibus sessilibus oblongis.
  - In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. A most singular species, the leaves of a shining silver colour; the flowers were too much decayed when I examined the specimens.
  - Oxytropis Lambertii.—O. acaulis, sericeo pilosa; foliolis (19) lanceolato-ellipticis utrinque acutis, scapis folia æquantibus, spicis capitatis, bracteis linearibus longitudine calycis.
    - On the Missouri. Bradbury. U. Aug. Sept. v. v. in Hort. Lambert. Flowers a beautiful purple. It approaches near to O. argentata and setosa.
- p. 474. Dalea aurea.—D. sericeo-villosa; spicis oblongis terminalibus solitariis, bracteis oblongis acuminatis calycis longitudine ciliatis, calycibus villosissimis, foliis sub-3jugis oblongis oboyatisque obtusis.

D. aurea. Fraser. catal. 1813.

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Flowers bright yellow, in oblong hairy spikes.

Dalea laxiflora.—D. glabriuscula; caule superne ramosissimo, ramis laxis elongatis, spicis paniculatis elongatis, floribus remotiusculis, bracteis subrotundis mucronatis carinatis, floribus enneandris, calycibus sericeo-villosis, foliis sub-4-jugis linearibus.

D. enneandra. Fraser. catal. 1813.

In Upper Louisiana Bradbury. 4. v. s. in Herb. Bradbury. This is the tallest of the genus. The white flowers are in narrow spikes, and have remarkable silky calyces, which form a fine contrast with the rest of the plant, being entirely destitute of hair.

Psoralea elliptica.—P. subpubercens; foliis ternatis: foliolis ellipticis obtusis, pedunculis axillaribus folio longioribus, spicis conferto-paucifloris, dentibus calycis abbreviatis.

In Upper Louisiana. Bradbury. 4. v s. in Herb. Bradbury. Flowers small, white with a tinge of purple.

Psoralea longifolia.—P. undique sericeo-villosa; foliis ternatis: foliolis linearibus elongatis, spicis axillaribus pedunculatis laxifloris folio brevioribus, dentibus calycis bracteisque subulatis.

In Upper Louisiana. Bradbury. 21. v. s. in Herb. Bradbury. Flowers midde-sized, apparently white. The leaves have none of those glandular dots so gene-

ral in this genus.

Psoralea cuspidata.—P. villosa; foliis digitato-quinatis, foliolis obovatis mucronatis integerrimis, spicis axillaribus densifloris, laciniis calycis bracteisque ovatis cuspidatis conspicue punctatis.

P. macrorhiza. Fraser. catal. 1813.

In Upper Louisiana. Bradbury. 4. v. s. in Herb.
Bradbury. This species has some resemblance to P.
esculenta.

Cytisus rhomlifolius.—C. pubescens; racemis terminalibus erectis, leguminibus falcatis subarticulatis, foliolis oblongo-rhomboideis obtusis, stipulis rotundato-ovatis obliquis.

p. 475.

p. 476.

p. 489.

C. rhombifolius. Fraser. catal. 1813.

- In Upper Louisiana. Bradbury. v. s. in Herb. Bradbury. The stipulæ are large and foliaceous; the specimen I have seen was in fruit, and Mr. Bradbury has seen only one plant in flower.
- Troximum glaucum.—T. scapo unifloro glabriusculo, foliis p. 505. lineari-lanceolatis planis integerrimis utrinque glaucis, calycinis foliolis imbricatis acutis pubescentibus. - Vol. 2. p. 505.
  - Troximum cuspidatum.—T. scapo unifloro superne subtomentoso, foliis linearibus margine undato tomentosis, calycinis foliolis imbricatis cuspidatis glabris.

In Upper Louisiana. Bradbury. U. v. s. in Herb. Bradbury. Flowers large, yellow. Resembles the preceding.

- Hymenopappus scabiosæus.—H. candicanti-lanuginosus; fop. 519. liis profunde pinnatifidis, laciniis lineari-oblongis subdentatis, floribus simpliciter corymbosis, calyce sub-10phyllo flosculis majore, seminibus pubescentibus.-Vol. 2. p. 519.
  - Hymenopappus tenuifolius.—H. candicanti-lanuginosus; caule corymboso-ramoso, foliis subbipinnatifidis, laciniis anguste linearibus integris, floribus composite corymbosis, pedicellis confertis, calyce sub-6-phyllo flosculis
    - breviore, seminibus villosissimis. In Upper Louisiana. Bradbury. 3. v. s. in Herb. Bradbury. At first sight I considered this to be the same with the preceding species; but comparing the figure and description in the Journal d'Histoire Naturelle, vol. 1. p. 16. t. 1. with my specimen, I found them materially distinct. The flowers are white, and not half the size of the former.
- Artemisia dracunculoides .- A. glabra; ramis nutantibus, p. 521. foliis longo-linearibus subfalcatis, radicalibus trifidis, racemis foliosis, pedicellis brevibus, floribus erectis, calycibus subglobosis paucifloris, foliolis scariosis.

A. nutans. Fraser. catal. 1813.

- In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. From three to four feet high; flowers very small.
- Erigeron hirsutum.—E. undique hirsutissimum; caule simp. 532.

plici unifloro, foliis linearibus integerrimis enervibus, calycibus hirsutis.

E. uniflorum. Willd. sp. pl. 3. p. 1960?

In Upper Louisiana. Bradbury. 4. v. s. in Herb. Bradbury. Not above five inches high; flowers large, ray white and long.

Galardia acaulis.—G. pilosa; scapo unifloro, foliis linearispathulatis, paleis pappi (5—7) ovatis brevi-aristatis.

In Upper Louisiana, Bradbury. U. v. s. in Herb. Bradbury. Not above a span high; flower small, simply yellow.

Iva axillaris.—I. herbacea, subpilosa; foliis plerumque oppositis lineari-lanceolatis integerrimis, floribus axillaribus solitariis nutantibus, calycibus simpliciusculis, foliolis oyatis.

In Upper Louisiana. Bradbury. O. v. s. in Herb. Bradbury. About a span high; flowers white.

Ambrosia hispida.—A. undique canescenti-hispida; foliis bipinnatifidis, laciniis incisis, racemis terminalibus subpaniculatis.

In South Carolina. Catesby. O. v. s. in Herb. Sherard.

About a foot high; flowers larger than A. trifida.

Orchis herbiola.—O. cornu filiformi germine breviore, labello oblongo obtuso basi utrinque dentato; palato unidentato, bracteis flore longioribus.

Habenaria herbiola. Brown in Ait. kew. ed. 2. vol. 5.

p. 193.

In North America. Fothergill. 4. +. This species, unknown to me, appears to approach near to Orchis fuscescens.

Aristolochia tomentosa.—A. caule volubili frutescente, foliis petiolatis cordatis subtus tomentosis, pedunculis solitariis ebracteatis, corollæ tubo retorto; limbo subæqualiter trifido; ore hiante. Sims in bot mag. 1369.

On the mountains of South Carolina. Lyon. b. June. v. v. Resembles A. Sipho. Flowers yellow.

Alnus glauca.—A. foliis oblongis acutis duplicato-serratis subtus glaucis, axillis venarum nudis, stipulis lanceolatis.—Mich. arb. 3. p. 322. t. 4.

In New England and on the high mountains of Pensylvania. b. March April. v. v. This shrub, which is known by the name of Black Alder, has a strong resemblance to A, incana.

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p. 580.

p. 581.

p. 587.

p. 587.

p. 59**6**.

p. 622.

## ADDENDA ET CORRIGENDA.

V	0	L.	I.
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pag.

- 1 lin. 4 loco Monoicum lege Monoica. This error occurs in this and the next table of genera.
  - 15 adde Monoicum.
  - 22 adde Monoica.
  - 23 adde Monoica.
- 7 Hippuris vulgaris. In the Sherardian Herbarium are specimens collected at Hudson's Bay which I compared with the European Hippuris, and found them entirely distinct. I rather suspect this plant ought to be placed among the Filices.
- 5 adde Dioica.
- 7 12 adde Dioica.
  - 13 adde Dioica.
  - 15 adde Monoica.
    - 7 ab infer. adde Mich. arb. 3. p. 50. t. 6.
- 3 17 ab infer. lege Mich. arb. 3. p. 122. t. 12.
  - 11 ab infer. lege Mich. arb. 3. p. 118. t. 11.
  - 3 et 5 ab infer. delendæ sunt.
- 9 5 delenda est.
  - 6 lege Mich. arb. 3. p. 106. t. 8.
  - 14 dele Mich. arb. ejus loco Catesb. car. 1. t. 80.
  - 19 dele Catesb. car. t. 80. et lege Mich. arb. 3. p. 128. t. 13.
  - 28 lege Mich. arb. 3. p. 112. t. 9.
  - 3 ab infer. lege F. viridis. Mich. arb. 3. p. 115.
- 10 5 adde Mich. arb. 3. p. 217. t. 6.
- Monarda Kalmiana, adde Icon. t. 1.
- 17 13 post Flowers adde pale.
- 21 Ceratiola ericoides, adde Icon. t. 13.
- 24 25 Rynchospora lege Rhynchospora.

pag. 30 dele genus ANTHISTIRIA. 26 30 . Iris cuprea, adde I. fulva. Bot. mag. 1496. Iris verna, conf. Bot. mag. 1393. observ. Iris prismatica, adde Bot. mag. 1504. 16 loco foliis lege foliisque. 42 43 18 loco E lege C. 61 9 et 14 loco Dilepycum lege Dilepyrum. Milium amphicarpon adde Icon. Tab. 2. 62 72 6 ab infer. loco A lege S. 95 23 dele 2. ante biloculari. 7 ab infer. loco involucro lege involucris. 96 98 8 ad marginem loco data lege cordata. ultima, loco caule lege scapo. Willdenow's and La-102 Oldenlandia glomerata. marck's synonym seem to belong to a very ambiguous species of this genus, or, as I strongly suspect, to Ludwigia nitida, as I have seen this plant in the Sherardian Herbarium under the name and synonyms of Oldenlandia uniflòra. 115 Planera aquatica, adde P. ulmifolia. Mich. arb. 3. p. 283. 126 18 loco Gonolobus lege Gonolobium. 20 loco Appendix lege Appendices. inter 224 et 225 insere CEROPEGIA. Folliculi 2. erecti. Sem. plumosa. Cor. urceolatæ limbus connivens. 128 inter 244 et 245 insere SISON. Fructus ovatus, striatus. Invol. sub-4-phylla. 138 8 ab infer. post palustris adde β. inflata. 146 Ipomœa Jalapa, adde Convolvulus Jalapa. Bot. mag. 1572. 158 Pinkneya pubescens, adde Mich. art. 2. p. 276. 11 et 12 delendæ sunt. 159 Ribes resinosum, adde Icon. Bot. mag. 1583. 163 164 7 ab infer. adde Mich. fl. amer. 1. p. 109. 165 7 ab infer. loco lacustris lege lacustre. 1 loco subgeminis lege sub gemmis. 166 167 6 adde Bot. mag. 1479. 169 ultima, ante atrinque adde foliis. Claytonia lanceolata, adde Icon. Tab. 3. 175 177 Nyssa villosa, adde N. sylvatica. Mich. arb. 2.

2 c 2

Nyssa biflora, adde Mich. arb. 2. p. 265. t. 22.

p. 260. t. 21.

*100°	lin.
pag.	Nyssa candicans, adde Mich. arb. 2. p. 257. t. 20.
177	Nyssa tomentosa, adde Mich. arb. 2. p. 257. t. 20.
178	
181	1 loco 1187 lege 1181.
186	1 adde Bot. mag. 1551.
187	20 loco unifloribus lege unifloris.
199	ultima, adde Mich. arb. 3. p. 269. t
200	Ulmus fulva, adde U. rubra. Mich. arb. 3.
	p. 278. t
	Ulmus alata, adde Mich. arb. 3. p. 275. t
	Celtis occidentalis, adde Mich. arb. 3. p. 226.
	t. 8.
000	Celtis crassifola, adde Mich. ark. 3. p. 228. t.g.
206	17 loco ramosissima lege ramosissimo.
219	Berberis aquifolium, adde Icon. Tab. 4.
	Berberis nervosa, adde Icon. Tab. 5.
221	Gleditschia triacanthos, adde Mich. arb. 3. p.
	164. t
	Gleditschia monosperma, adde Mich. arb. 3.
	$p. 169. t. \dots$
223	Allium angulosum, adde A. stellatum. Bot. mag.
004	1576.
224	Conostylis americana, adde Icon. Tab. 6. Lo-
	phiola aurea. Bot. mag. 1596. In this figure
	the flowers are more than twice the size of
- o C	those in its native state.
<b>2</b> 26	Phalangium Quamash, adde Scilla esculenta.
	Bot. mag. 1574. Having not seen the living
	plant when I made my description, I was
	misled by Mr. Lewis in describing one of the
	petals to be dependent and the rest ascendent,
~~~	which is not the case.
228	Lilium pudicum, adde Icon. Tab. S.
232	Streptopus roseus, adde Uvularia rosea. Bot.
	mag. 1489.
	Streptopus lanuginosus, adde Uvularia lanuginosa.
2.40	Bot. mag. 1490.
240	Chamærops Palmetto, adde Mich. arb. 2.
	p. 186. t
	Nolina georgiana, adde Asphodelus minor albus
	ex Provincia mariana. Pluk. mant. 29. t. 342.
	f. 1. (pars paniculæ), secundum Herb. She-
	rard. Very fine specimens of this rare plant
	I found in the Sherardian Herbarium collected
	by M. Catesby on the Savannah river. It re-
	sembles Helonias graminea, Bot. mag. 1599.

ADDENDA ET CORRIGENDA. lin. pag. exceedingly, and I should have taken it to be the same if the pedicels were not solitary, and, as Mr. Kerr observes, the germ polyspermous, which in Noline is only 3-sper-242 Veratrum viride, adde Helonias viridis. Bot. mag. 1006. Veratrum angustifolium.—Of this species I have seen a fine specimen in the Sherardian Herbarium, under the name Phalangium canadense majus ramosum, Iridis folio, by which it appeared to grow likewise in Canada. The panicle was monoic not dioic, as I observed it in Virginia, the seeds lanceolate, membra-242 14 ab infer. loco legumine lege tegumine. 23 loco thier lege their. 243 Helonias tenax, adde Icon. Tab. 9. 255 Æsculus flava, adde Mich. arb. 3. p. 238. t... Æsculus glabra, adde Mich. art. 3. p. 242. 4 ab infer. adde nomen specificum, rosmarinifo-259 lium. dele Oenothera scapigera. Ejus loco vid. Supple-263 mentum sub nomine Oenothera cæspitosa. 264 Menziesia globularis, adde M. ferruginea  $\beta$ . Bot. mag. 1571. Though Dr. Sims considers this species only as a variety, I still think the distinctions given by A. Salisbury, Esq. are sufficient to keep it as a species. 265 Diospyros virginiana, adde Mich. arb. 2. p. 195. 266 Acer rubrum, adde Mich. arb. 2. p. 210. t. 14. Acer dasycarpum, adde Mich. arb. 2. p. 205. t. 13. Acer saccharinum, adde Mich. arb. 2. p. 218. Acer nigrum, adde Mich. arb. 2. p. 238. t. 16. 267

Acer nigrum, adde Mich. arb. 2. p. 238. t. 16. Acer striatum, adde Mich. arb. 2. p. 242. t. 17. Acer Negundo, adde Mich. arb. 2. p. 247. t. 18. inter AGROSTEMMA et OXALIS, adde 394. LYCHNIS. Cal. 1-phyllus, oblongus, lævis, Pet. 5. unguiculata, limbo subbifido. Caps. 1—5-locularis.

6 loco 394 lege 395. 10 loco 395 lege 396.

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	ADDENDA EL CORREGENDA.
pag.	lin.
1 .0	12 loco 396 lege 397.
	15 loco 397 lege 398.
283	Gaultheria serpyllifolia, adde Tab. 13.
284	Gaultheria Shallon, adde Tab. 12.
289	Vaccinium nitidum, adde Bot. mag. 1550.
293	Andromeda floribunda, adde Bot. mag. 1566.
	In the extensive collection of the Sherardian
	Herbarium I met with most of the species of
	Vaccinium and Andromeda described in the
	present work; but meeting with none that
	were new, convinced me of the idea that this
	extensive family is nearly fully described
	here.
294	Andromeda mariana, adde var. ovalis. Bot.
291	mag. 1579.
205	Andromeda arborea, adde Mich. arb. 3. p. 222
295	t. 7.
004	Kalmia latifolia, adde Mich. arb. 3. p. 147. t. 5.
297	Rhododendron maximum, adde Mich. arb. 3.
000	p. 144. t. 4. Rhododendron cataubiense. I have had an op-
298	
	portunity of seeing this species in flower at
	Messrs. Lee and Kennedy's; the plant was not
	above a foot high; the flowers rose-coloured,
	similar to those of R. maximum; but having
	scarceiy any marks or spots on the upper part
	of the corolla.
302	Mylocarium ligustrinum, adde Icon. Tab. 14.
	The original drawing of this plant was taken
	by me at Messrs. Bartrams' near Philadelphia.
303	Monotropa morisoniana. I had the pleasure of
	seeing, in the Oxford Herbarium, the origi-
	nal specimen from which the figure in Mo-
	rison's History has been taken, and which so
	erroneously has been quoted under Monotropa
	uniflora.
304	Gymnocladus canadensis, adde Mich. arb. 2.
777	p. 272. t. 23.
308	Podalyria mollis, adde v. s. in Herb. Lambert.
309	Virgilia lutea, adde Mich. arb. 3. p. 266. t. 3.
313	Tiarella cordifolia, adde Bot. mag. 1589.
327	BARTONIA. Since writing the above article I
*	had an opportunity of seeing both species there
	described in a living state; the first in the
	garden of A. B. Lambert, Esq. at Boyton,

lin. pag.

where it flowered in very high perfection and formed seeds; the other at Messrs. Frasers', Sloane Square. From the latter I have taken

the following description.

Bartonia nuda. - Caulis ramosus, angulatus, glanduloso-pubescens. Folia oblonga, sessilia, basi attenuata, repando-dentata, utrinque scabra, viridia. Inflorescentia B. ornatæ. Flores duplo minores, lutescentes, germine nudo, angusto. Petala 10. angusto-lanceo-Filamenta exteriora longiora, plerumque castrata et petaloidea.

Tigarea tridentata, adde Icon. Tab. 15. 333

339 8 ab infer. loco linearibus lege lineari-1 ab infer. adde Mespilus arborea. Mich. arb. 3. p. 68. t. 11.

Pyrus coronaria, adde Malus coronaria. 340

arb. 3. p. 65. t. 10. Rosa blanda. Differentia specifica lege R. ger-344 minibus globosis pedunculisque hispidis, ramis aculeato-hispidissimis, foliolis &c.

Rubus spectabilis, adde Icon. Tab. 16. 348 350 Dalibarda fragaroides, adde Bot. mag. 1567.

VCL. II.

362 Tilia glabra, adde T. americana. Mich. arb. 3. p. 311. t. 1.

363 Tilia pubescens, adde Mich. arb. 3. p. 317. t. 3. Tilia heterophylla, adde T. alba, Mich, arb. 3. p. 315. t. 2.

Talinum teretifolium, adde Pluk. alm. t. 223. 365 f. 2. secundum Herb. Sherard.

Caltha flabellifolia, adde Icon. Tab. 17. 390

adde CASTILLEJA. Cal. tubulosus unilabiatus. 404 Cor. bilabiata, labio inferiore trifido, glandulis duabus inter lacinias. Caps. bilocularis.

Prunella pensylvanica, adde Icon. Mart. cent. 411

Gerardia fruticosa, adde Icon. Tab. 18. 423 Gerardia quercifolia, adde Icon. Tab. 19.

Gerardia cassioides dele. Ejus loco vide Supple-424 mentum sub nomine Seymeria.

Mimulus Lewisii, adde Icon. Tab. 20. 427

Pentstemon lævigata, adde Bot. mag. 1425.

428 Pentstemon pubescens, adde Bot. mag. 1424.

## ADDENDA ET CORRIGENDA.

pag.	lin.
441	13 loco glabrum lege glabra.
451	Hopea tinctoria, adde Mich. arb. 3. p. 61. t. 9.
	Gordonia Lasianthus, adde Mich. arb. 3. p. 131.
	t. 1.
	Gordonia pubescens, adde Mich. arb. 3. p. 135.
	t. 2.
460	inter 591 et 592, adde CYTISUS. Cal. bilabiatus:
	labio superiore bidentato. Carina erecta.
	Legum. basi attenuatum, 1-loculare, compres-
	sum. Stam. monadelpha.
	inter 587 et 588, adde ERVUM. Cal. 5-dentatus,
	dentibus subulatis. Stigma simplex, incur-
	vum. Legum. compressum, oligospermum.
	Stam. diadelpha.
465	Polygala Seneca, adde var. y. tenuifolia-foliis
	linearibus, spicis confertifloris.
	On the Missouri. Lewis and Bradbury. v. s.
468	Lupinus villosus, adde Icon. Tab. 21.
471	Vicia americana, adde v. s. in Herb. Bradbury.
	var. foliis linearibus.
475	Psoralea esculenta, adde Icon. Tab. 22.
479	Lupinaster macrocephalus, adde Icon. Tab. 23.
480	Glycyrrhiza lepidota, loco sericeo-villosis lege
	utrinque lepidotis.
487	Robinia Pseudacacia, adde Mich. arb. 3. p. 245.
	t. 1.
488	Robinia viscosa, adde Mich. arb. 3. p. 262. t. 2.
499	Prenanthes Serpentaria, adde Icon. Tab. 24.
507	Liatris macrostachya, adde Bot. mag. 1411.
529	Senecio pauperculus, adde v. s. in Herb. Brad-
	bury.
559	3 loco t. 4. lege vol. 5.
564	Amellus villosus, adde Sideranthus integrifolius.
	Fraser, catal. 1813. v. s. in Herb. Bradbury.
	Amellus spinulosus, adde Sideranthus pinnatifi-
	dus. Fraser. catal. 1813. v. s. in Herb.
P 20 9	Bradbury.
571	7 loco acutis lege acuminatis.  Galardia bicolor, adde G. bicolor; caule ramo-
572	so, foliis caulinis lanceolatis subdentatis, ra-
	dicalibus dentato-pinnatifidis, paleis pappi
	integerrimis aristatis. Sims in Bot. mag. 1602.
	Virgilia grandiflora. Fraser. catal. 1813.
	This elegant plant, which has been proved to be
	a perennial, though it was always considered
	a potential, mought it was attrays considered

		ADDENDA ET CORRIGENDA.
mag.	lin.	
1.2.		an annual, is very variable in its size, colour,
		and number of florets in the ray. Native spe-
		cimens collected by Mr. Bradbury are co-
		vered with rigid hairs, and have but one flow-
		er. Cultivated plants raised from seeds of the
		same species are more smooth, branch more
		or less; the leaves are deeper divided, and
		produce several flowers double the size.
575		Rudbeckia columnaris, adde R. columnaris;
0,0		foliis pinnatifidis : foliolis lanceolatis, exte-
		rioribus ordinatim majoribus, receptaculo cy-
		lindraceo elongato. Sims in Bot. mag. 1601.
		This species is not above a foot high, and ap-
		pears to be annual.
580		Iva ciliata, adde Iva annua. Mich. flamer. 2.
		p. 184.
585		Orchis ciliaris, adde Habenaria ciliaris. Brown
		in Ait. kew. ed. 2. vol. 5. p. 194.
		Orchis cristata, adde Habenaria cristata. Brown
		in Ait. kew. ed. 2. vol. 5. p. 194.
587		Orchis viridis, adde Habenaria viridis. Brown
		in Ait. kew. ed. 2. vol. 5. p. 192.
		Orchis bracteata, adde Habenaria bracteata.
		Brown in Ait. kew. ed. 2. vol. 5. p. 192.
588		Orchis hyperborea, adde Habenaria hyperbo-
		rea. Brown in Ait. kew. ed. 2. vol. 5. p. 193.
		Orchis fimbriata, adde Habenaria fimbriata.
		Brown in Ait. kew. ed. 2. vol. 5. p. 193.
589		Neottia cernua, adde Bot. mag. 1568.
		Neottia repens, adde Goodyera repens. Brown
		in Ait. kew. ed. 2. vol. 5. p. 198.
590		Neottia pubescens, adde Goodyera pubescens.
		Brown in Ait. kew. ed. 2. vol. 5. p. 198.
		Arethusa divaricata, adde Pogonia divaricata.
***		Brown in Ait. kew. ed. 2. vol. 5. p. 203.
592		Cymbidium pulchellum, adde Calopogon pulchel-
		lus. Brown in Ait. kew. ed. 2. vol. 5. p. 204.
		Cymbidium verecundum, adde Bletia verecun-
		da. Brown in Ait. kew. ed. 2. vol. 5. p. 206.
E04		Bot. mag. 930.
594		Cypripedium parviflorum, adde Bot. mag. 911.
595		Cypripedium arietinum, adde Bot. mag. 1569

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